Monthly and Seasonal Mean Analyses

June, July, August
1990

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Monthly and Seasonal Mean Analyses

June, July, August 1990

Mean fields obtained from the archive of operational analyses

Met O 20 (Dynamical Climatology Branch)
Meteorological Office
London Road
Bracknell
Berkshire RG12 2SZ

September 1990

Note: Permission to quote from this document should be obtained from the Assistant Director of the above Meteorological Branch.

Monthly and Seasonal Mean Analyses

Introduction

The archive of operational analyses contains a continuous record of global analyses every 12 hours (00 and 12 GMT) from May 1983 onwards. They are copies of the update analyses produced in the operational numerical weather prediction system using the 15-level model (Bell and Dickinson 1987). In this booklet there are presented monthly and seasonal mean fields computed from the archived analyses for a single season. Since a season spans three calendar months, there are four sections. Sections 1, 2 and 3 contain charts of the monthly mean fields for each month, and section 4 contains charts of the seasonal mean fields. The seasonal means are the means of the fields in the first three sections, weighted according to the number of days in each month.

Each section contains a set of charts for the northern and southern hemispheres and a set for the tropics. In each hemisphere, polar stereographic projects have been used to prepare a chart of pressure at mean sea level and composite charts showing both height (contours) and wind (vectors and isotachs) at 850, 500, 250 and 100 mb. In the tropics the charts are presented on a latitude–longitude projection encircling the globe in three sections covering the longitudes 0°–120° E, 120° E–120° W and 120° W–0°. This projection has been used to produce a series of charts of wind vectors and isotachs at 850 and 250 mb. On all charts, contours are depicted as solid lines, wind vectors as arrows and isotachs as dashed lines.

When archiving was first undertaken, for May 1983, global fields were stored according to their coefficients in a series of spherical harmonics up to a triangular truncation of T40 (Swinbank 1984). Since this is roughly equivalent to a latitude–longitude grid with a resolution of 4.5° by 4.5°, the conversion from the model's standard grid of 1.5° by 1.875° to the spectral representation results in some smoothing of the fields. Subsequently, a new method for storing the archived fields was developed as a result of discussions within the Working Group on the Development of the Operational Suite (WGDOS). This method uses a compressed digital coding of the original model field, on its standard latitude–longitude grid, but with fewer significant figures (Lowther 1986). It was implemented on 18 December 1985 in a limited version. After the inclusion of more fields, and following monitoring to ensure that the two representations (i.e. truncated spectral and compressed grid-point) of the archived analyses were consistent, the spectral archive was terminated on 31 October 1986.

The contents of the archives may be examined by consulting the computer data set 'M20.NARCHIND', where the tape number, file number and data set name for each archived day may be found. The fields in the spectral archive are stored in the format required by the post-processing (p-p) package. Details of the format and of the subroutines to be used for accessing the data are described in the manual for the p-p package. Some examples are shown in Swinbank (1984). The fields in the daily grid-point archive are stored as printfiles (Lowther 1986). A list of the fields in each of the two versions of the daily archive is given in the relevant documentation.

The monthly and seasonal mean fields have been computed from the spectral archive up to the end of October 1986. Thereafter, they have been computed from the grid-point archive. The mean fields are held as computer data sets in Met O 20, in spectral or grid-point format, as appropriate, and are available for general use. Means for each month and season over three years of the spectral archive are also available. The mean fields that are held are as follows:

Field		Pressure level (mb)
Westerly wind component	(m/s)	
Southerly wind component	(m/s)	1000*, 850, 700, 500, 400, 300,
Height	(dam)	250, 200, 150, 100, 70, 50
Temperature	(K)	
Relative humidity	(%)	1000*, 850, 700, 500, 400, 300
Pressure at mean sea level	(mb)	

* Fields at 1000 mb are held in the spectral archive. In the grid-point archive this level has been omitted and fields at 950 mb are held instead.

References

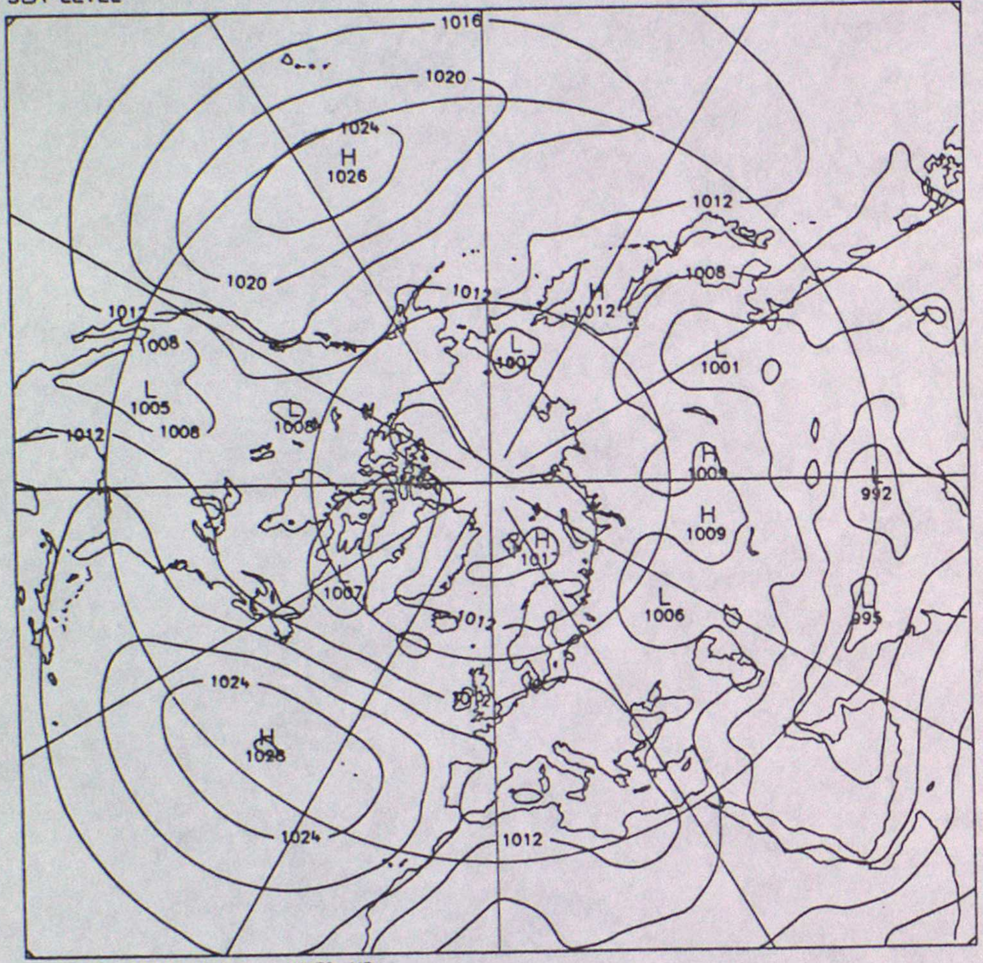
Bell, R.S. and Dickinson, A. 1987 The Meteorological Office operational numerical weather prediction system, Meteorological Office Scientific Paper No. 41, Met.O.979, HMSO.

Lowther, D. 1986 WGDOS Printfile Archive, Operational NWP Scheme, Documentation Paper No. 9.1, Met O 2b, Meteorological Office, Bracknell.

Swinbank, R. 1984 A system to archive operational analyses for research purposes. Met O 20 Technical Note No. II/218. Meteorological Office, Bracknell.

JUNE
1990

OPERATIONAL ARCHIVE MEANS. JUNE 1990
PMSL
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
SEA LEVEL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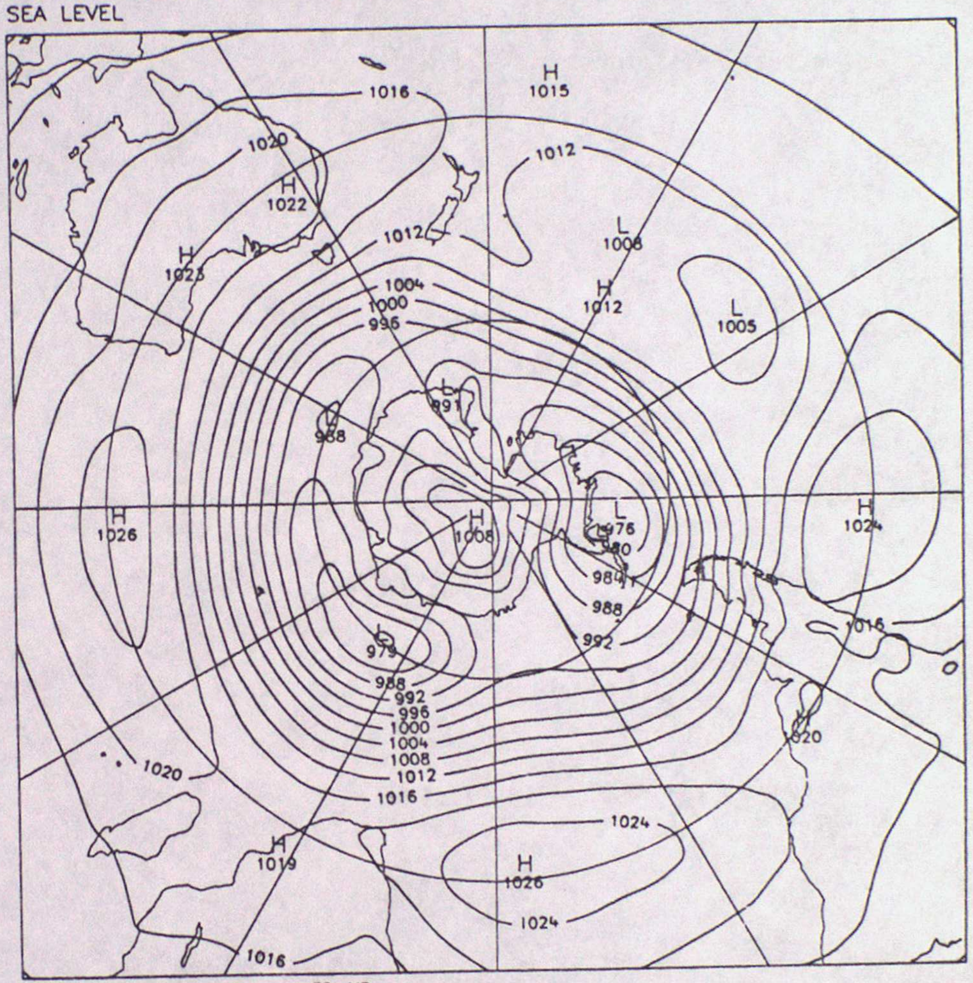
CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JUNE 1990
PMSL
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
SEA LEVEL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1024
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1024
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JUNE 1990
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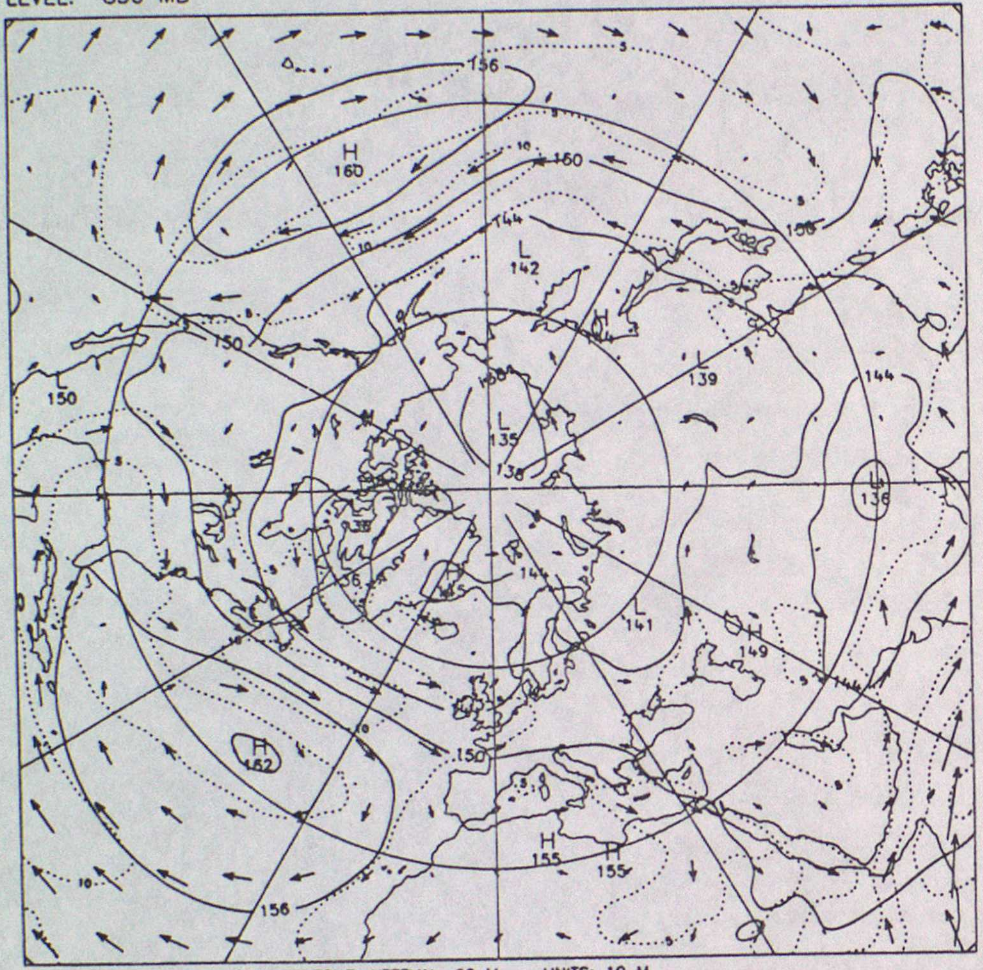
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144
H
152
150
H
155
H
155
156
5
10

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
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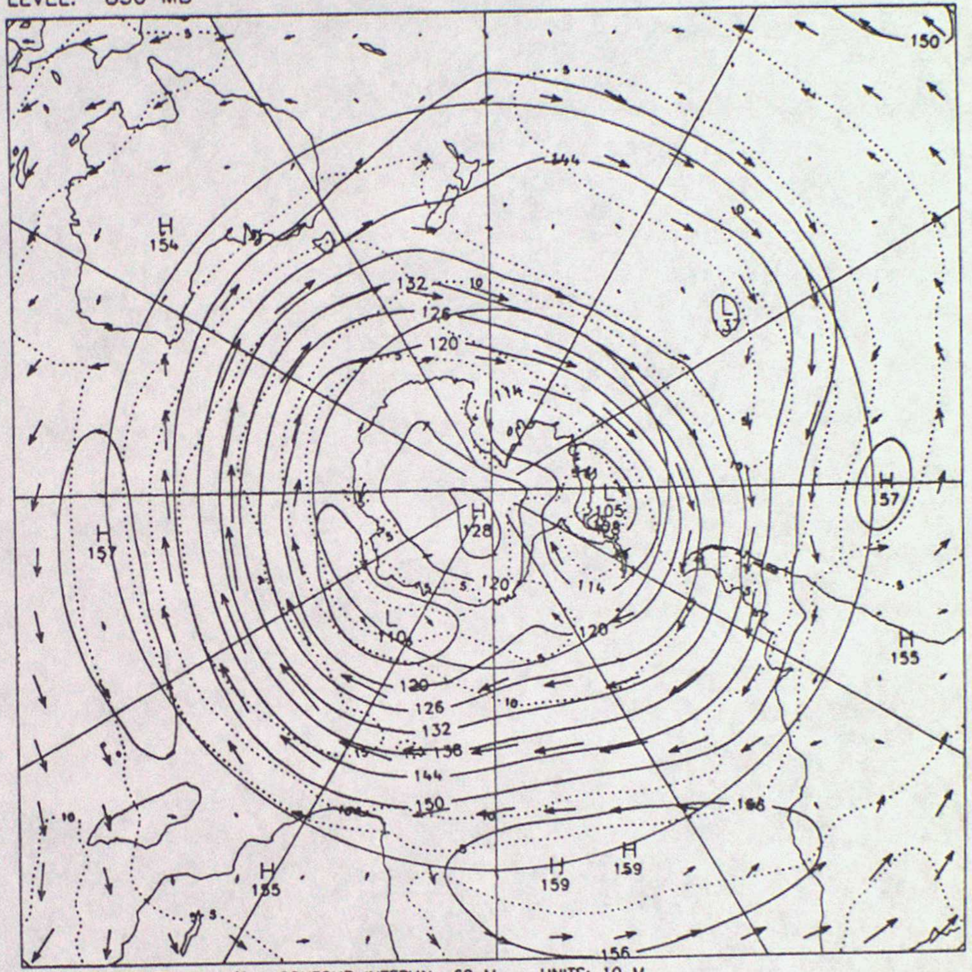
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168
H
155
H
159
H
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156
5
10

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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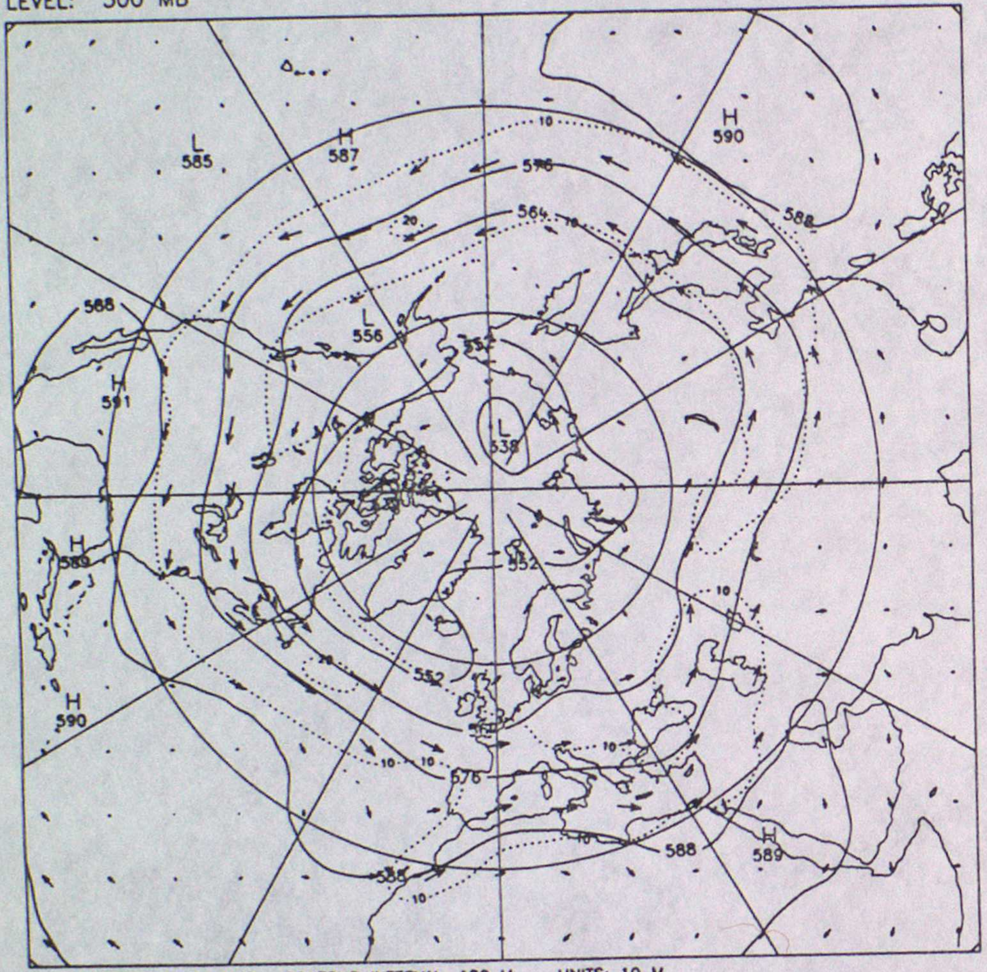
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552
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H
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→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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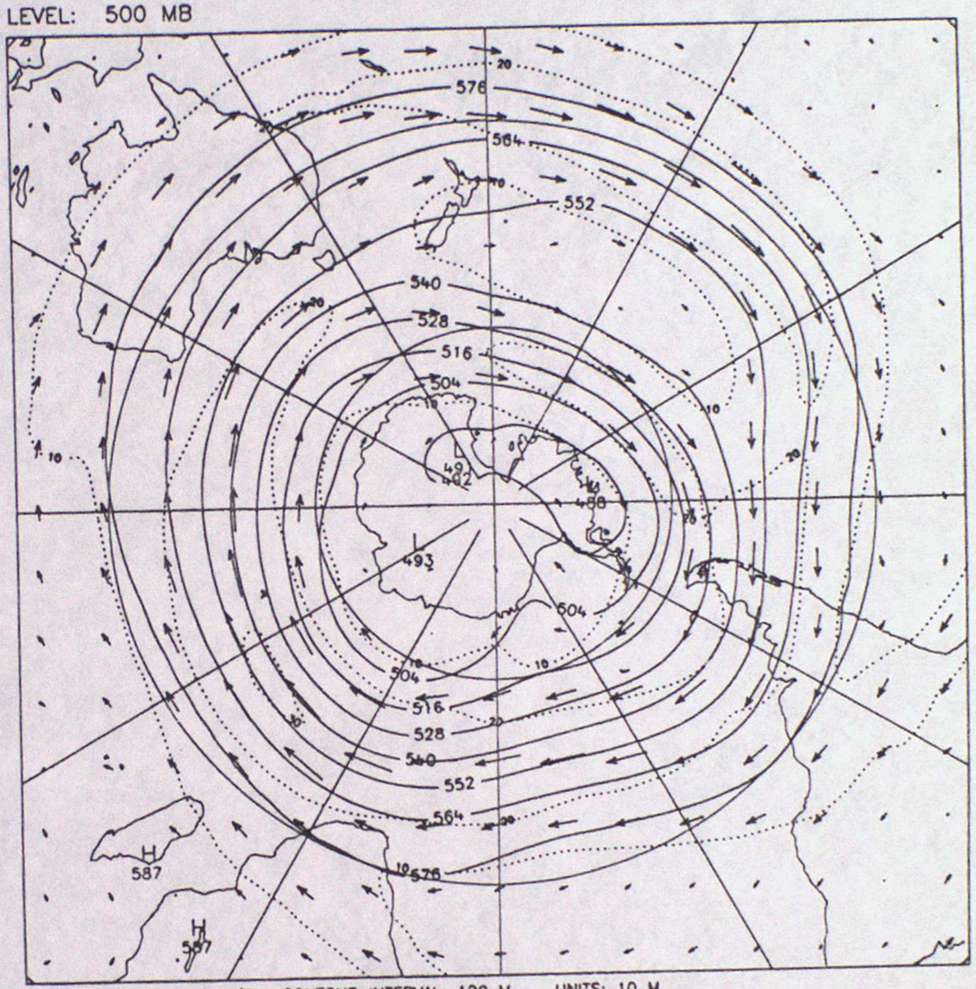
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H
587

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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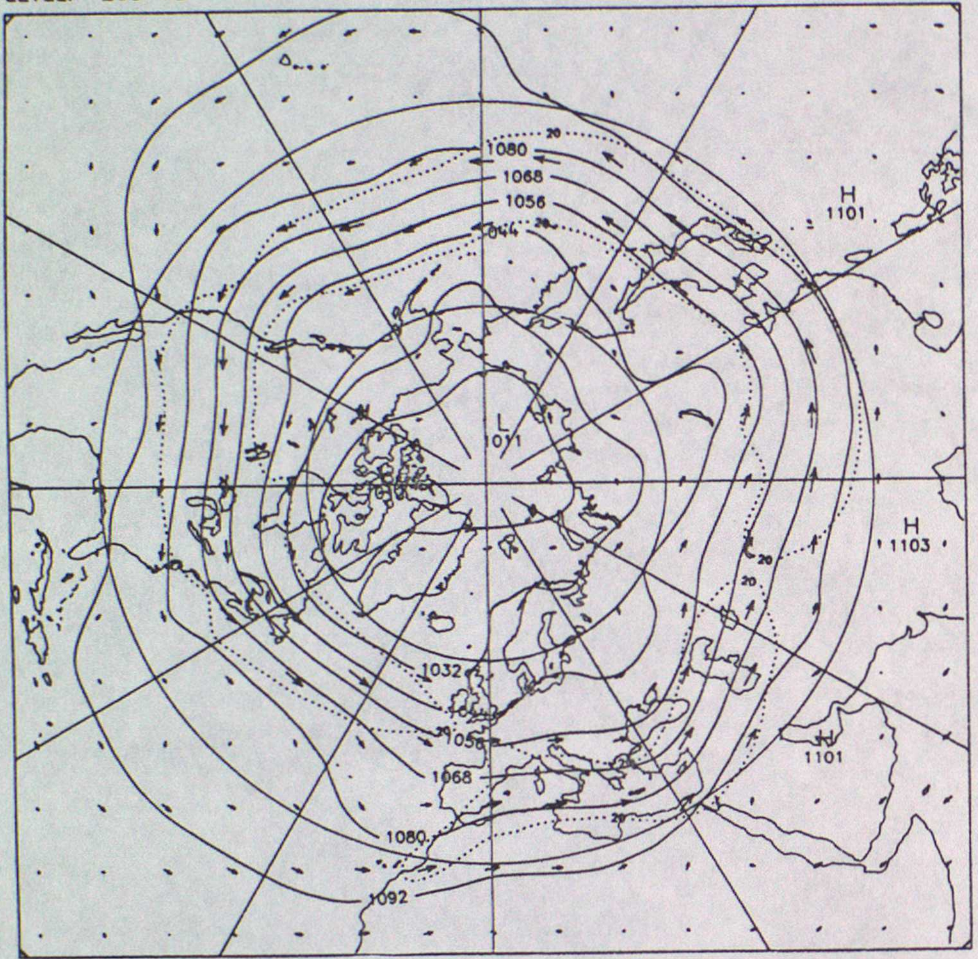
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H
1101
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
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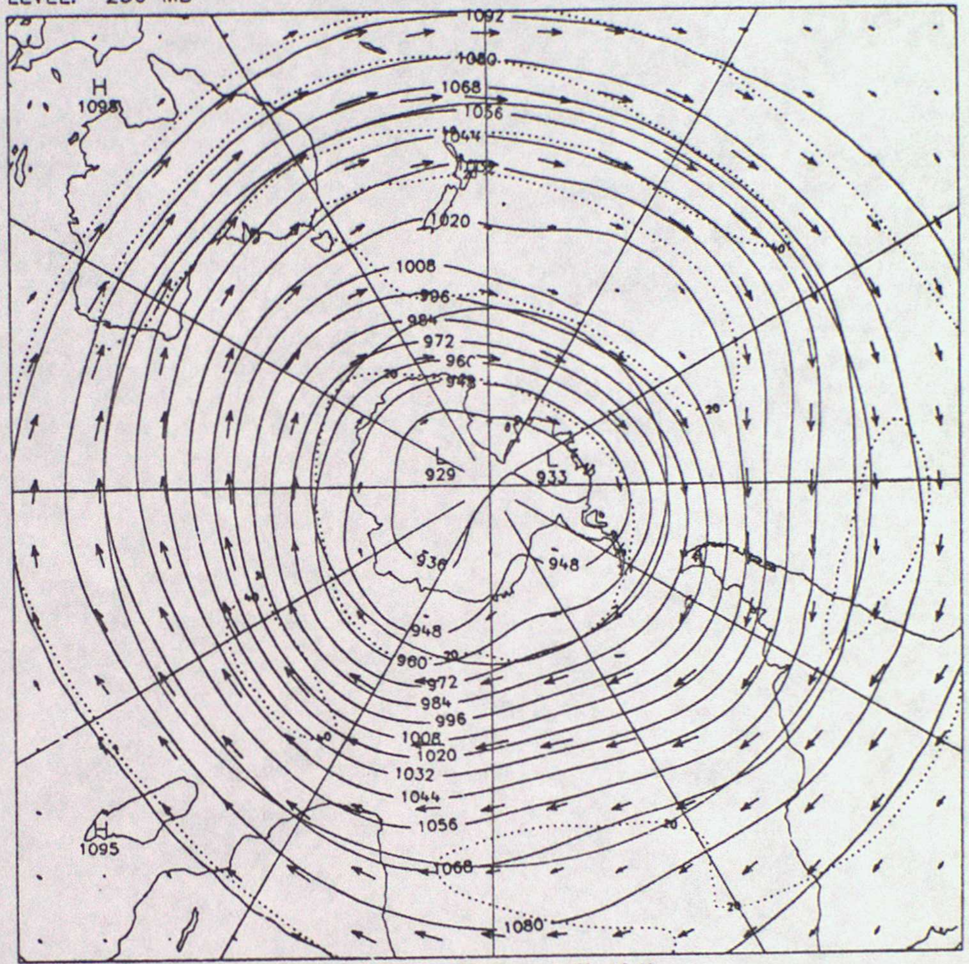
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1044
1056
1068
1080
H
1095
20
40

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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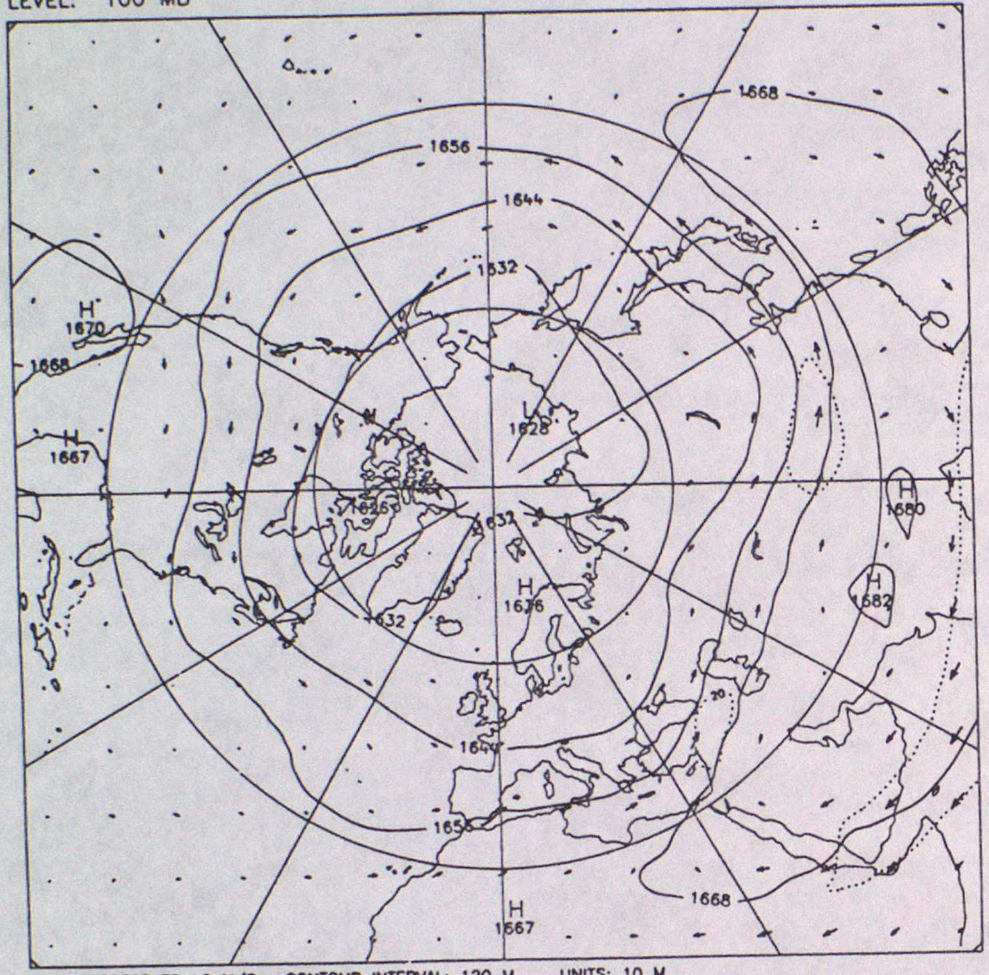
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→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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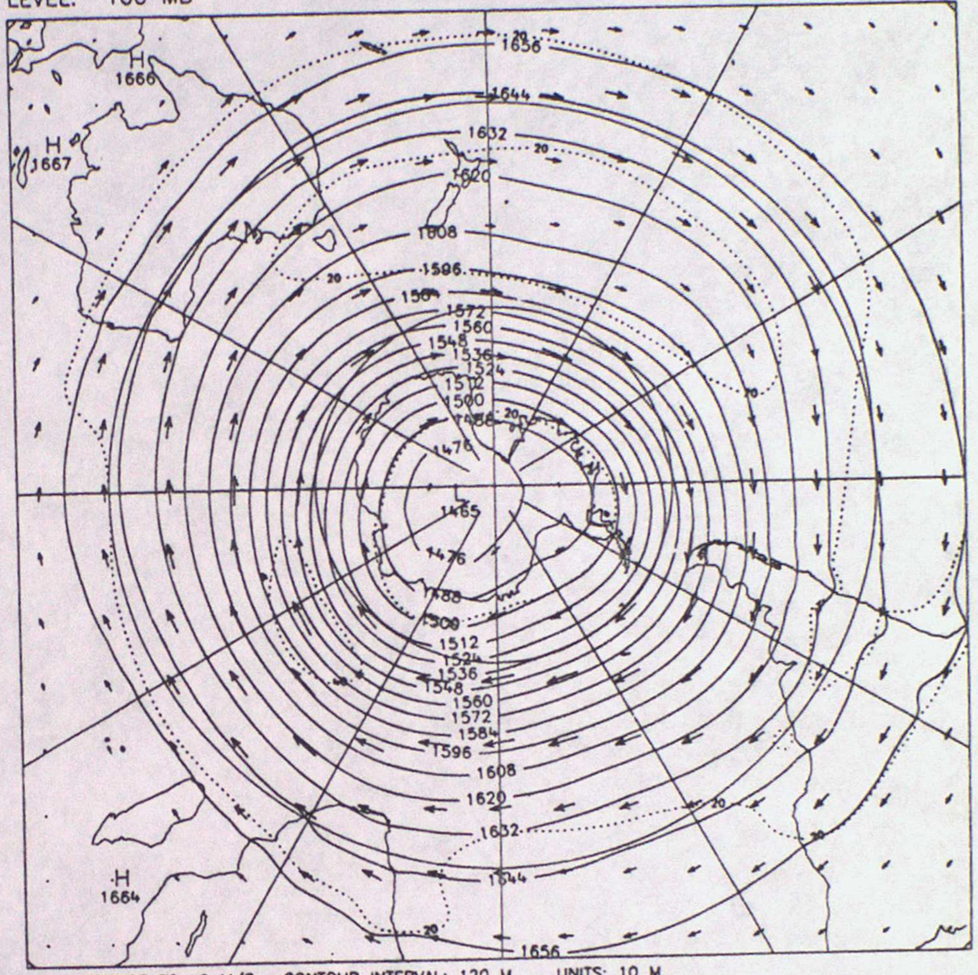
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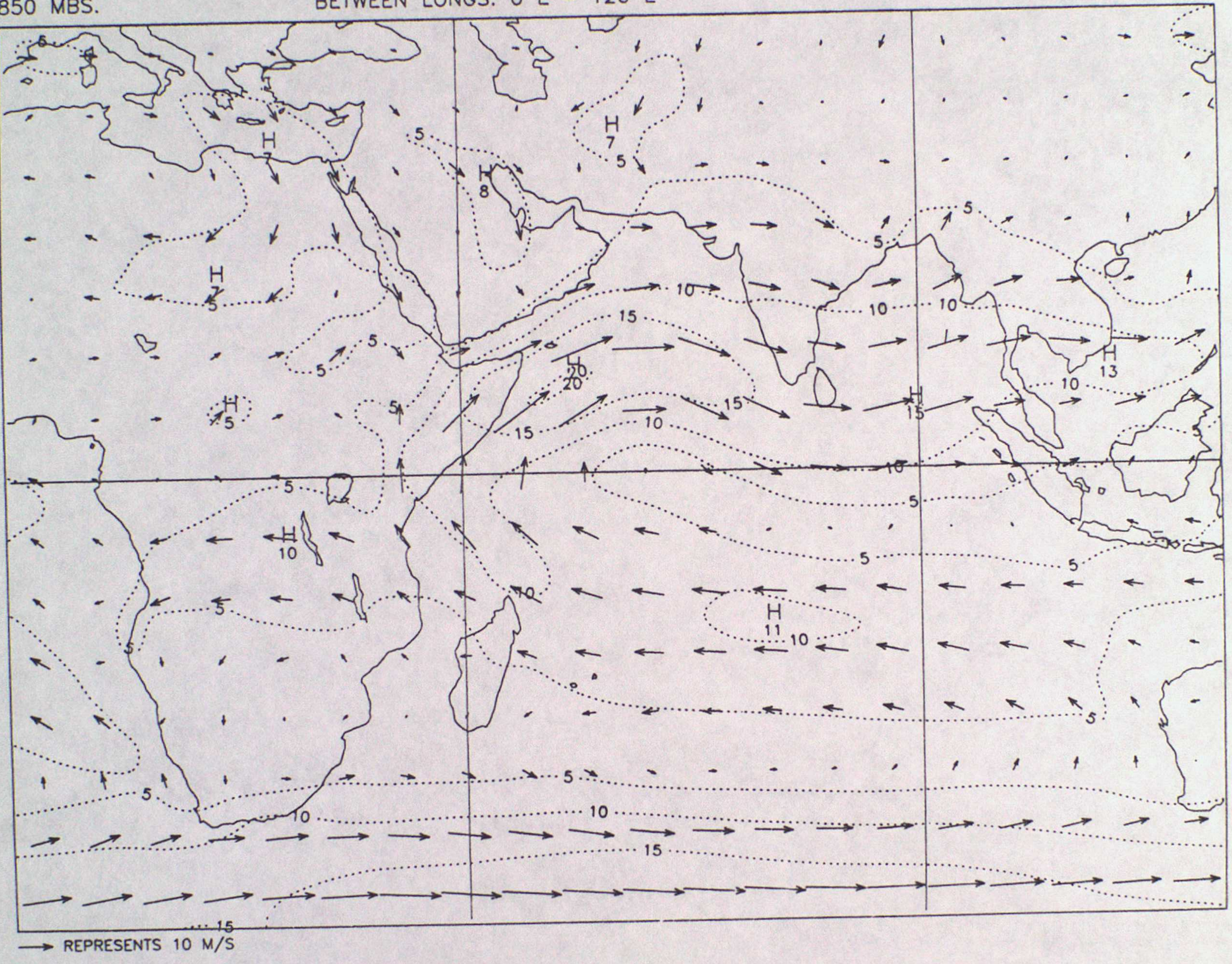
1664

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUNE 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
850 MBS. BETWEEN LONGS. 0 E - 120 E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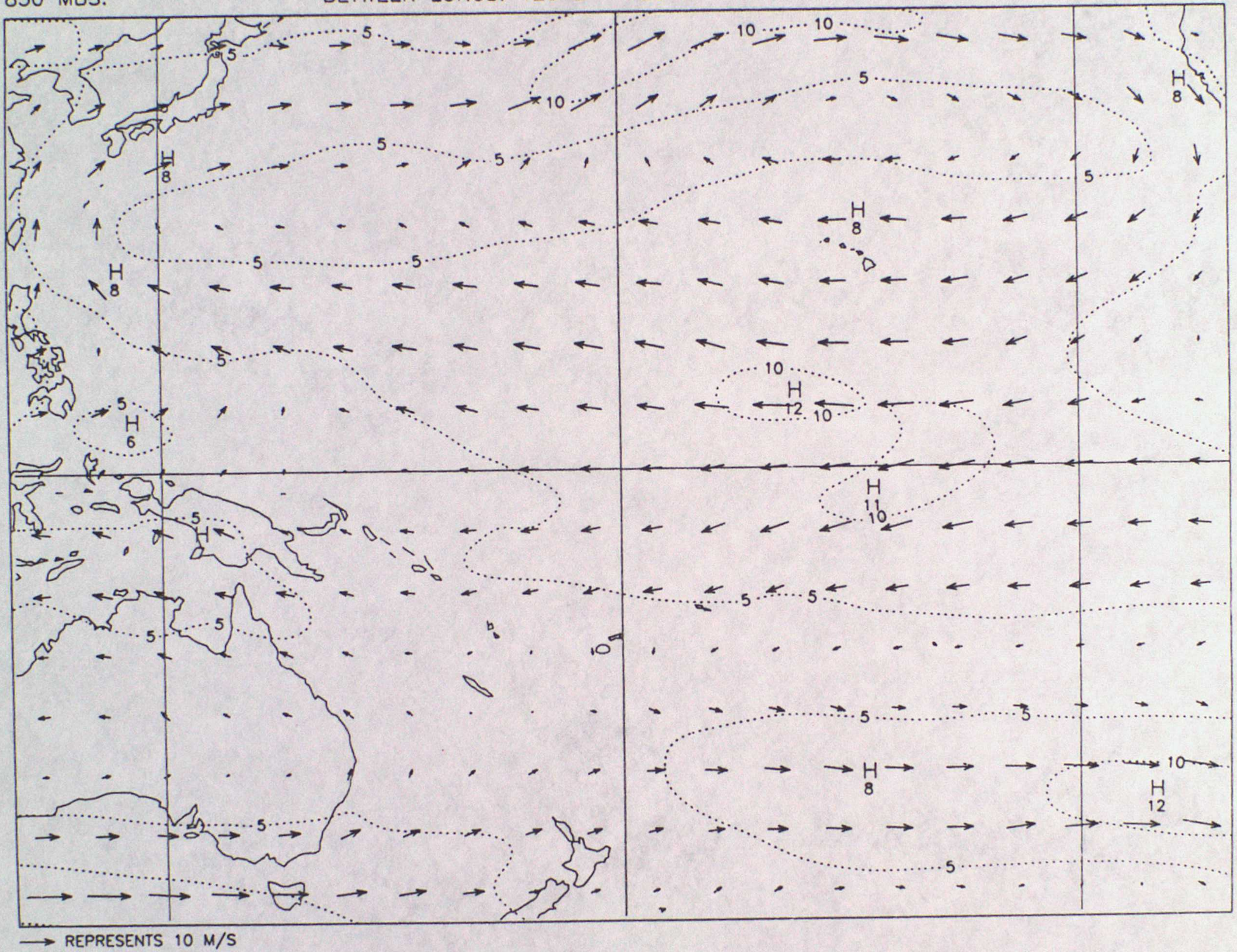
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   JUNE   1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
850 MBS.   BETWEEN LONGS. 120 E - 120 W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12
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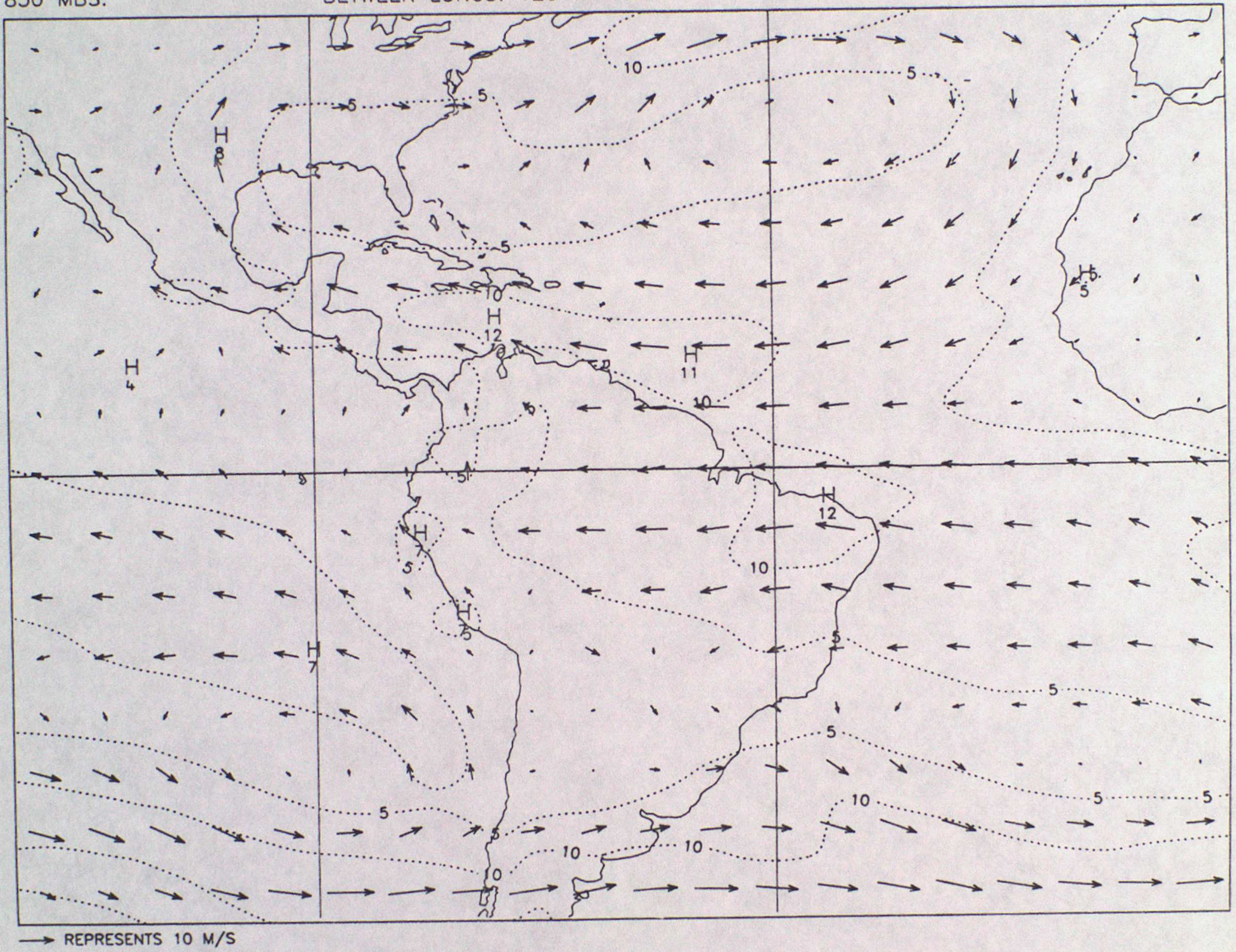
11
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS.   JUNE   1990
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
850 MBS.   BETWEEN LONGS. 120 W - 0 W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5
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JUNE 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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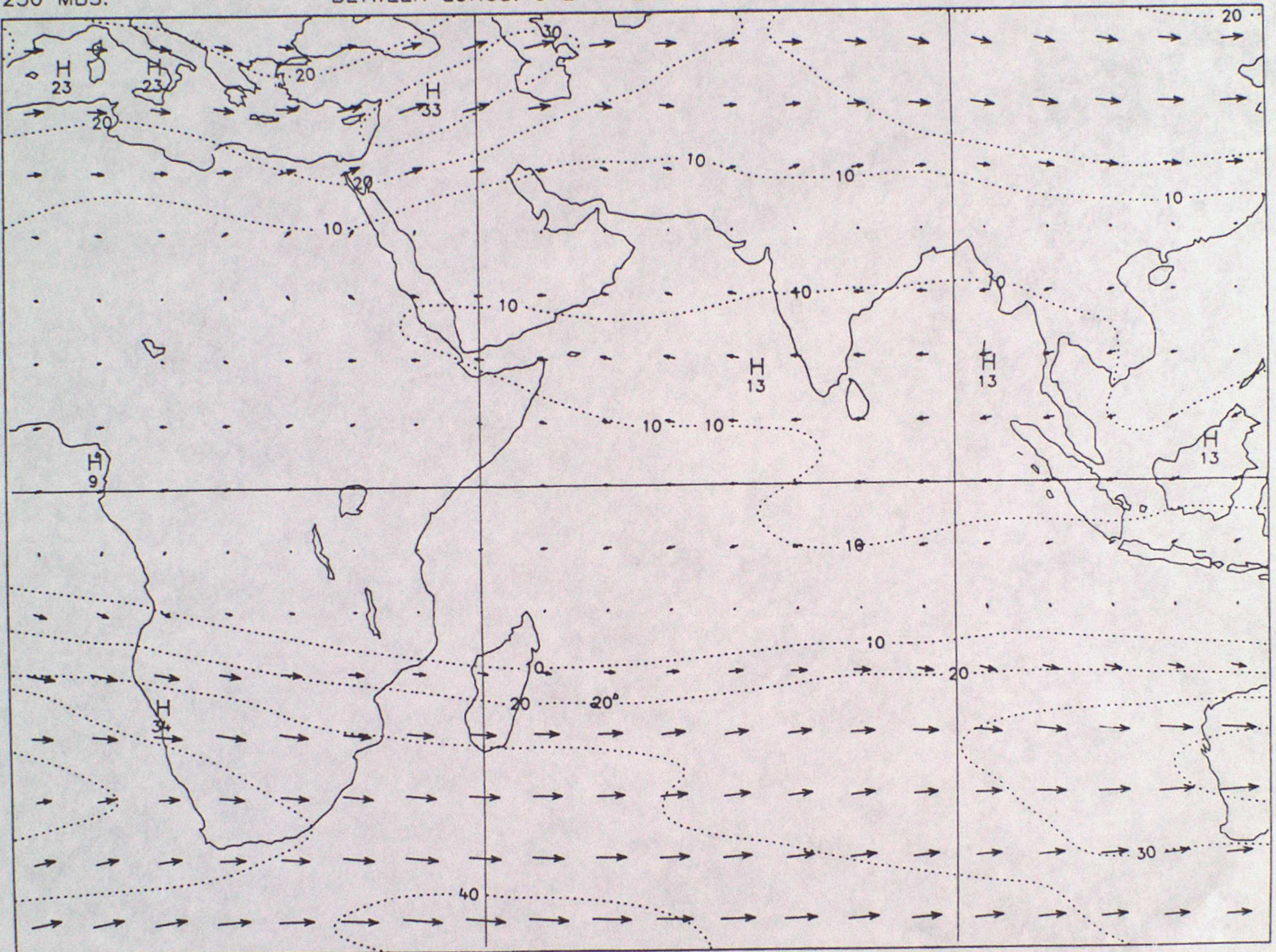
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H 13
H 9
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0
20
20
20
H 31
30
40

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JUNE 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
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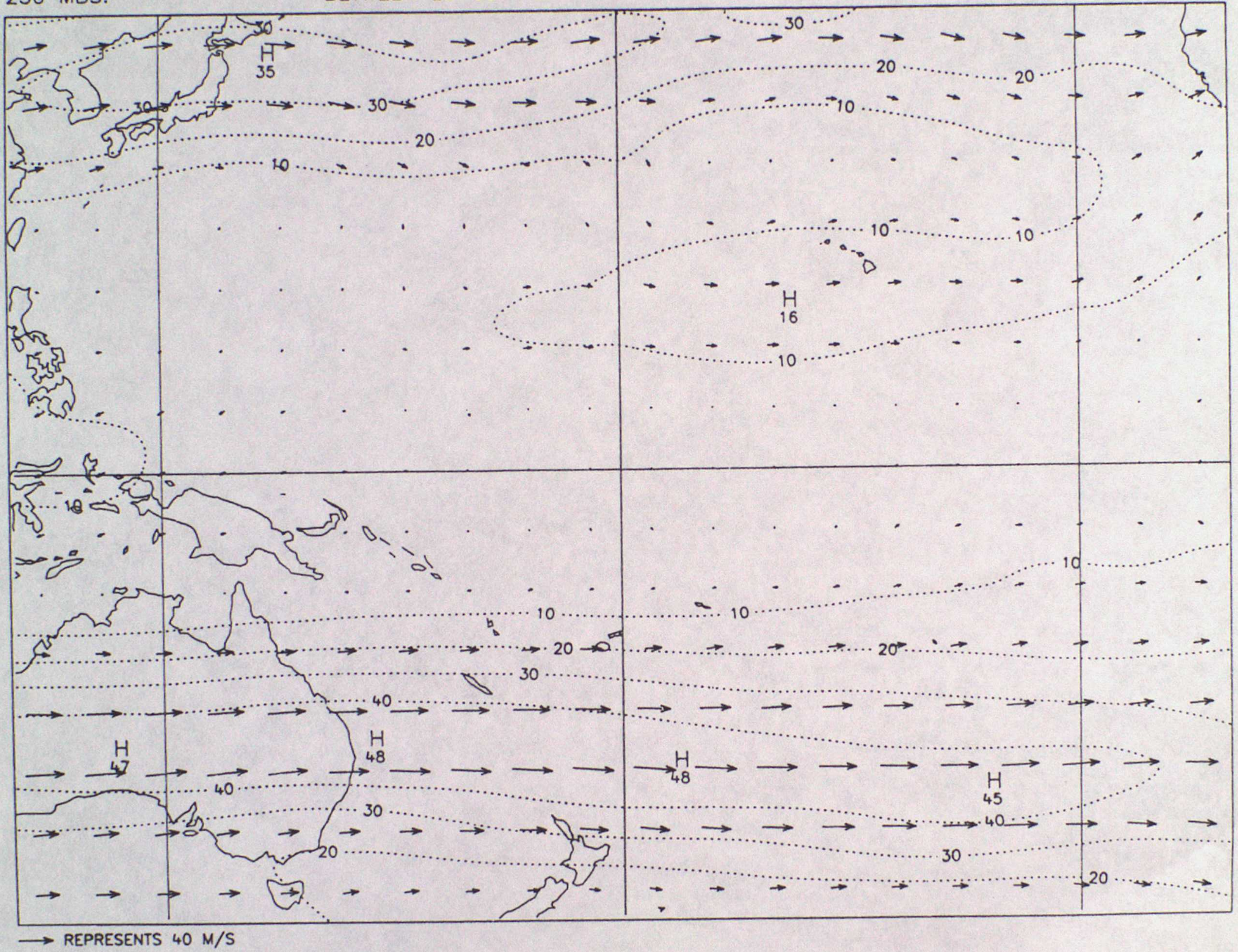
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48
40
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H
45
40
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20
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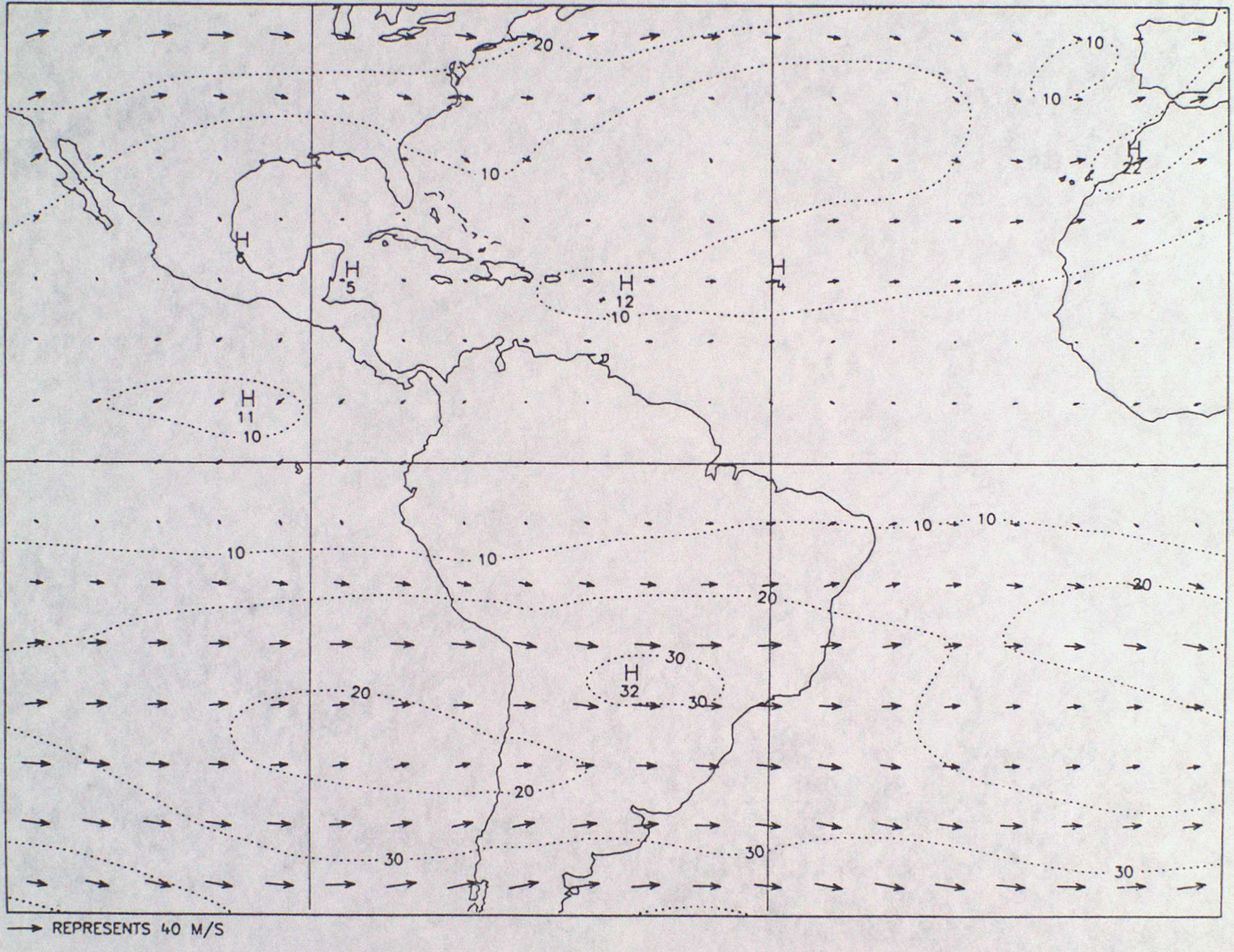
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JUNE 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 30/6/1990 DAY 181
250 MBS. BETWEEN LONGS. 120 W - 0 W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20
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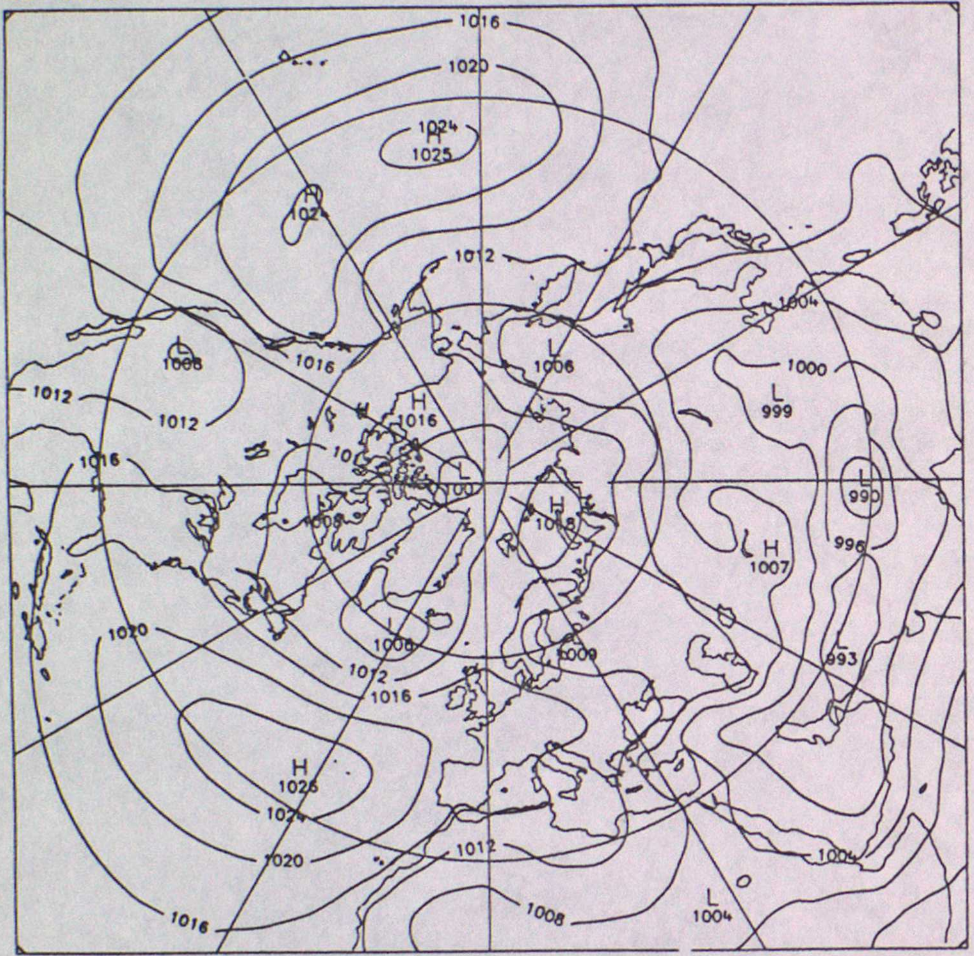
30
30
→ REPRESENTS 40 M/S

JULY
1990

OPERATIONAL ARCHIVE MEANS. JULY 1990
PMSL
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
SEA LEVEL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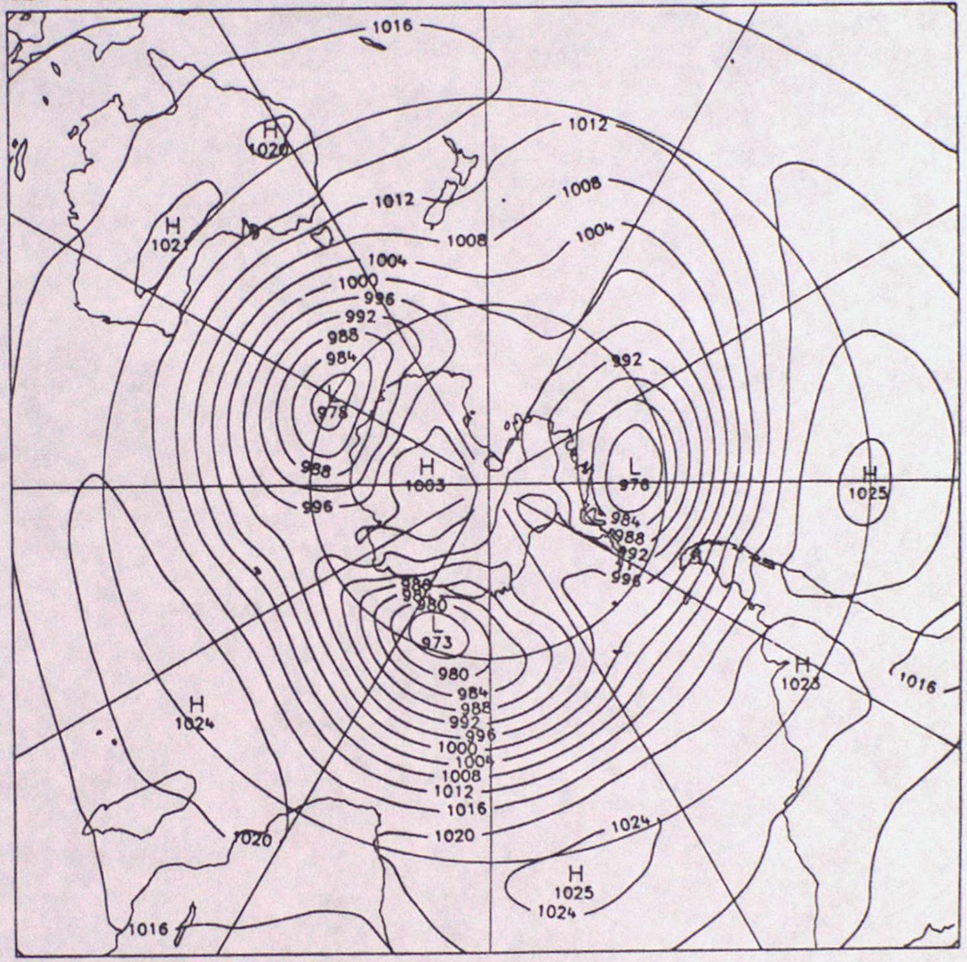
CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JULY 1990
PMSL
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
SEA LEVEL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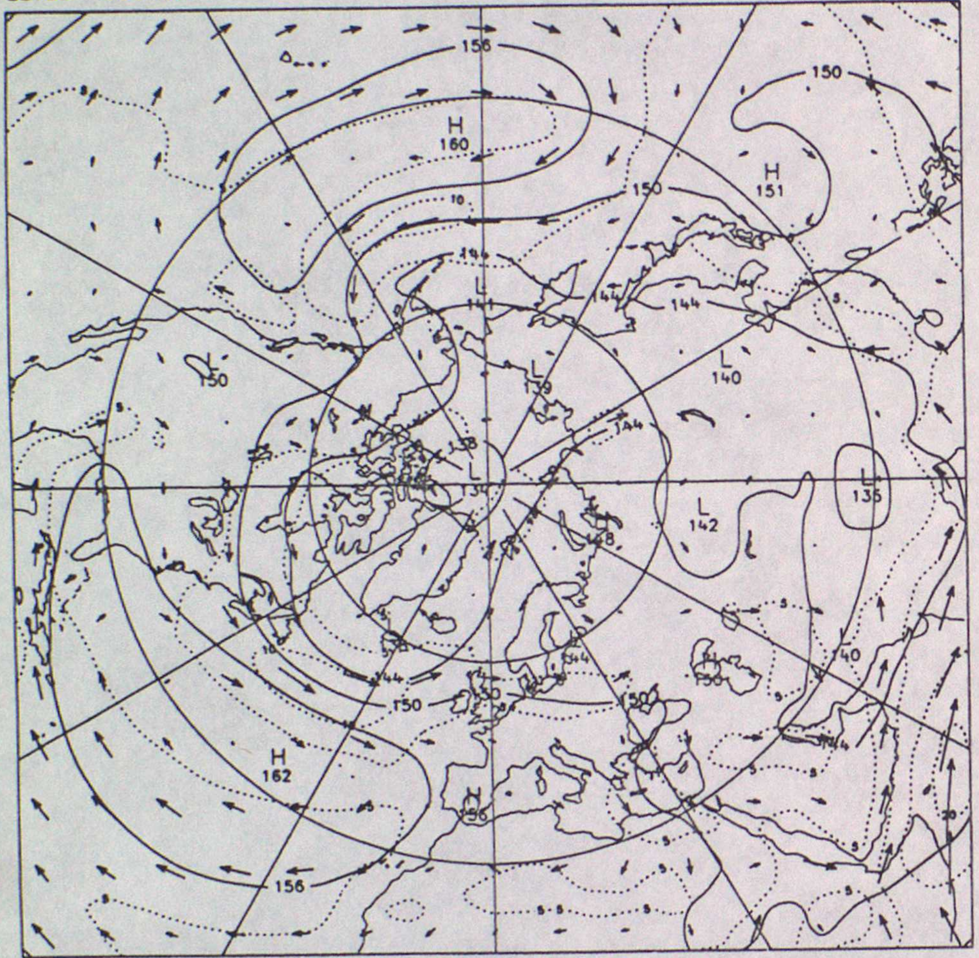
1024
1025
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 850 MB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142
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135
140
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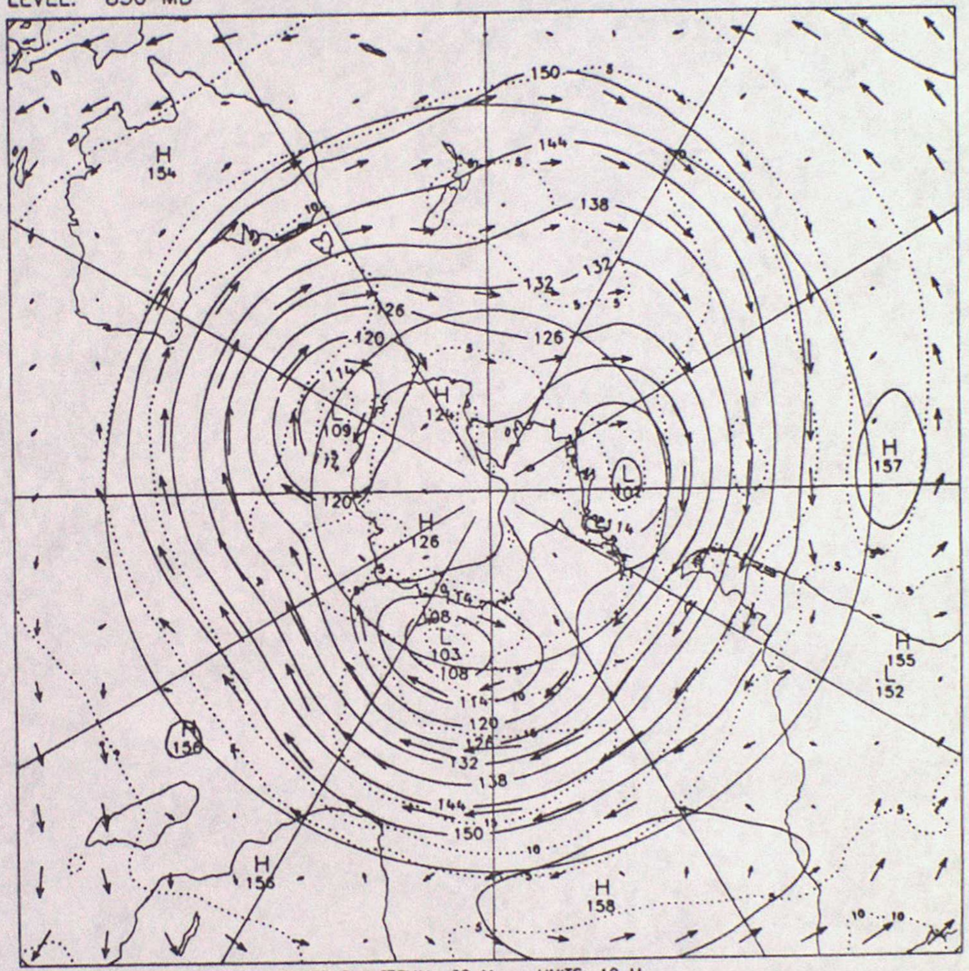
H
162
H
156
156

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 850 MB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H
155
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152
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156
H
156
H
158

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
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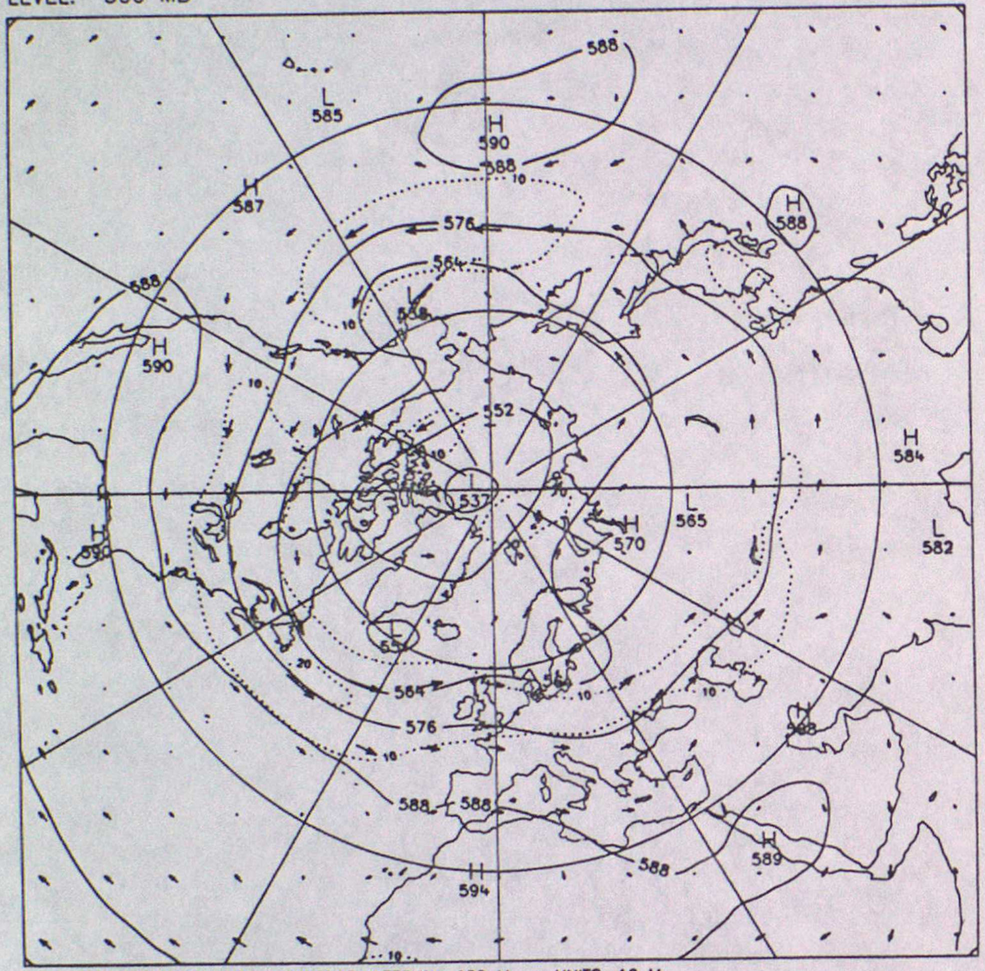
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576
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588
H
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→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
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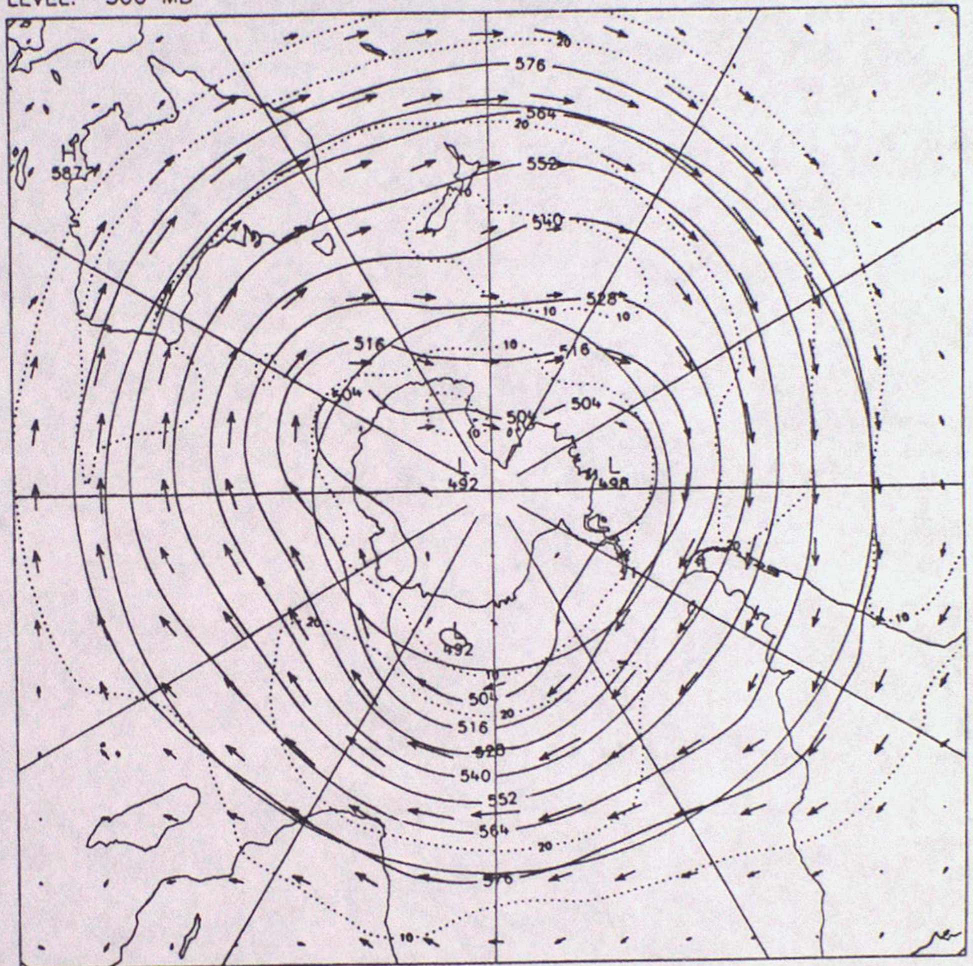
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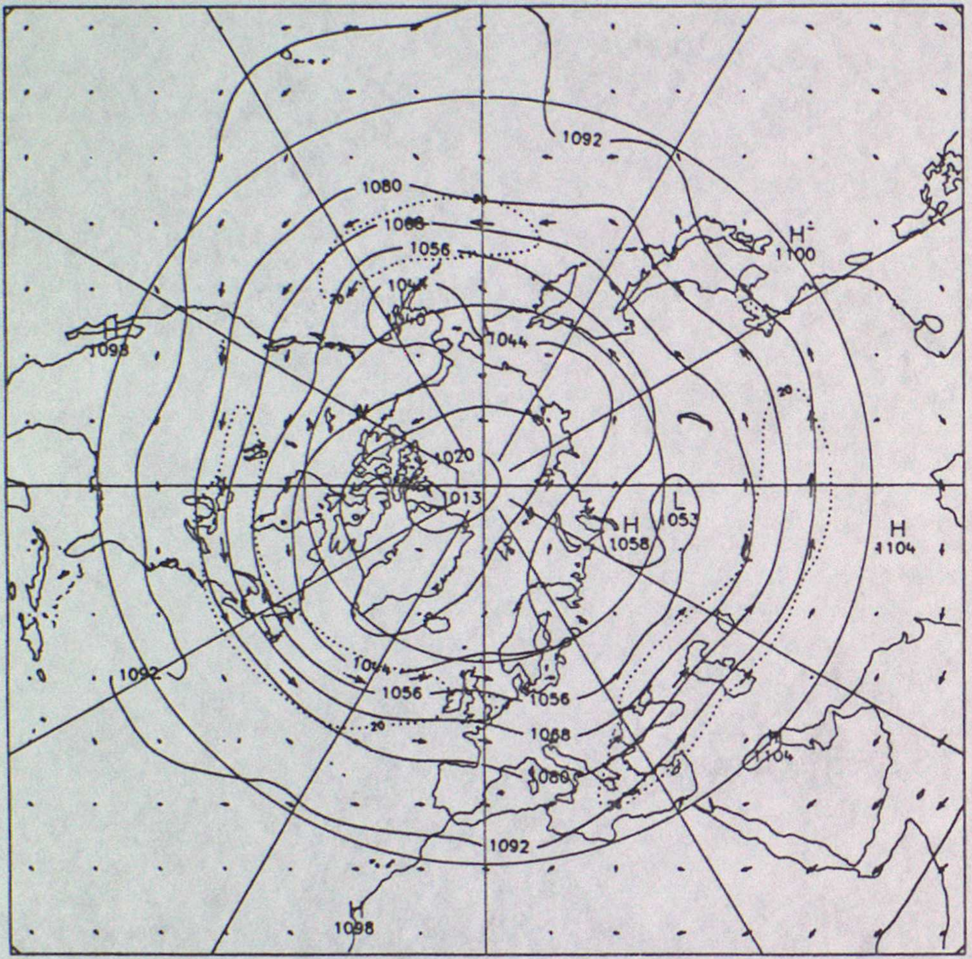
→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   JULY   1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 250 MB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H
1104
1092
1044
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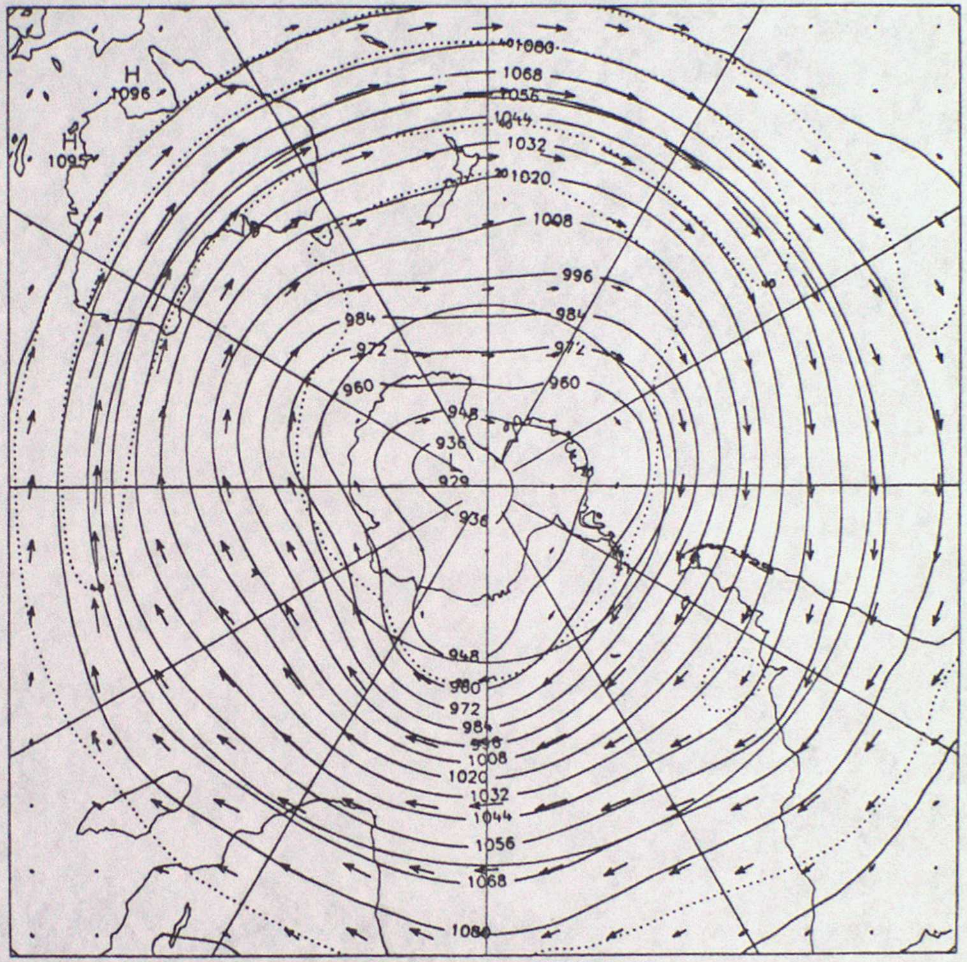
1056
1068
1080
1092
H
1098
20

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   JULY   1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 250 MB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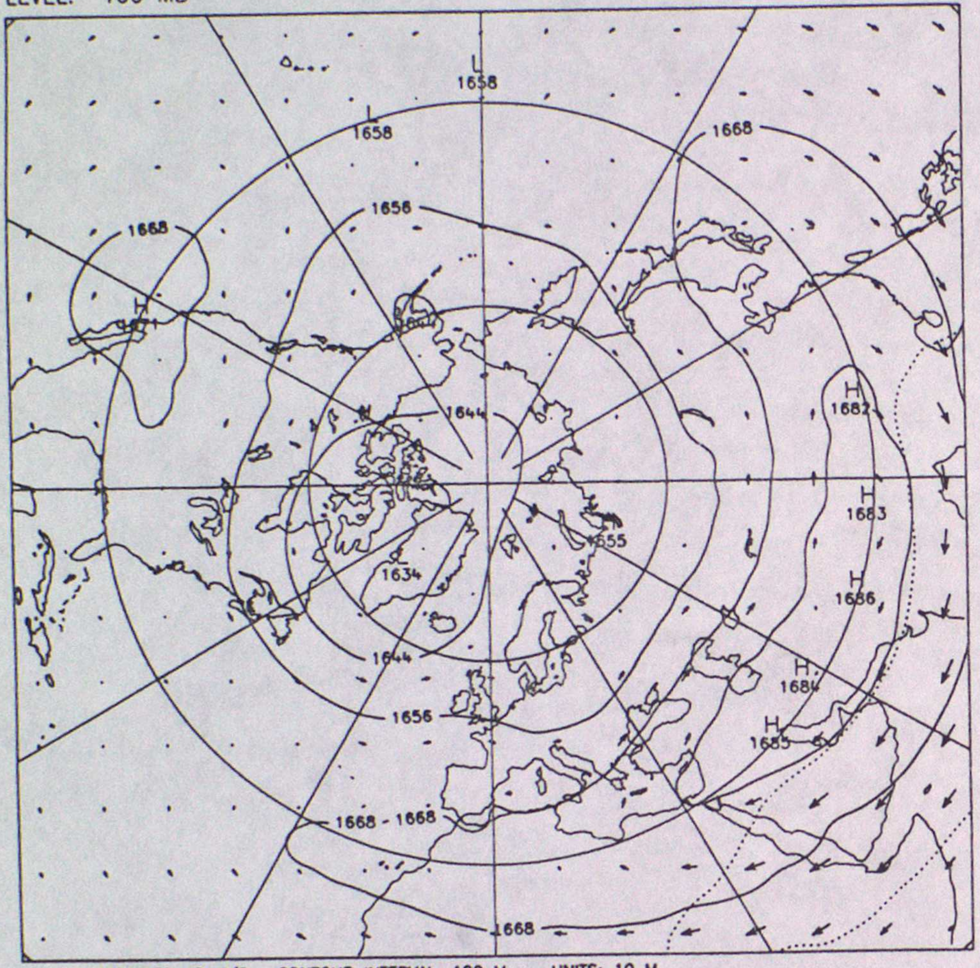
1020
1032
1044
1056
1068
1080
984
972
960
20
40

→ REPRESENTS 40 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 100 MB


L
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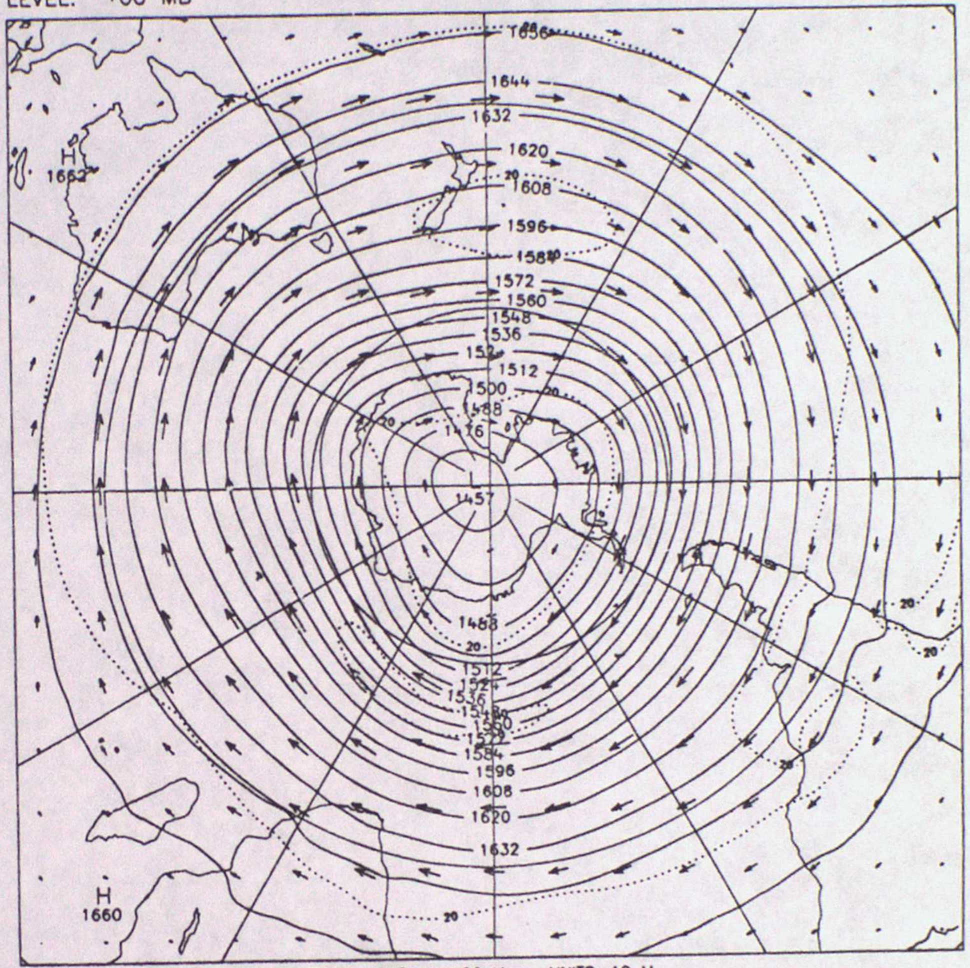
1644
H
1682
H
1683
1655
1634
H
1686
1644
H
1684
1656
H
1685
1668 - 1668
1668

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JULY 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
LEVEL: 100 MB


1656
1644
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1662
1632
1620
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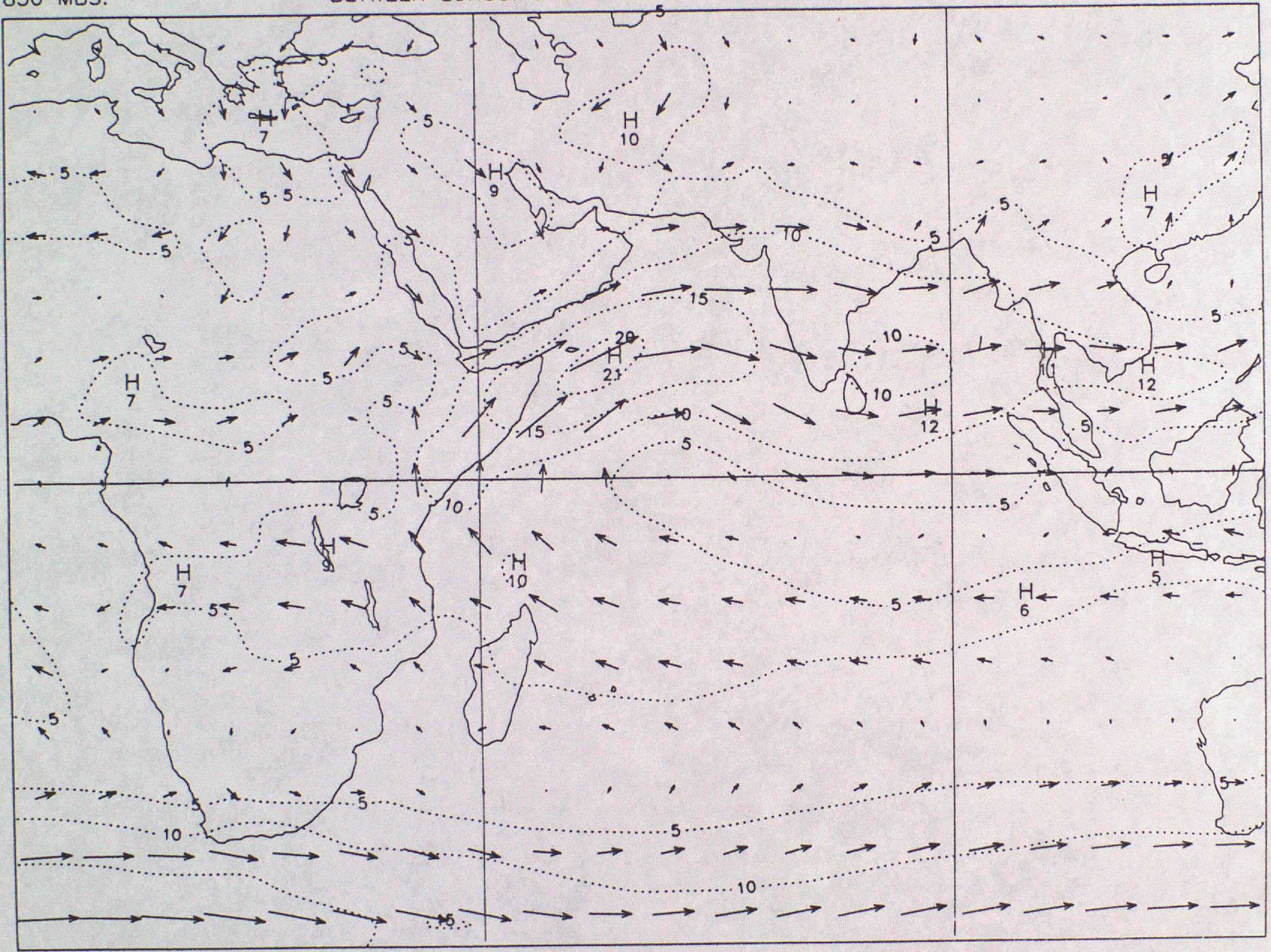
1500
1488
1476
20
L
1457
1488
20
1512
1596
1608
1620
1632
20
H
1660
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

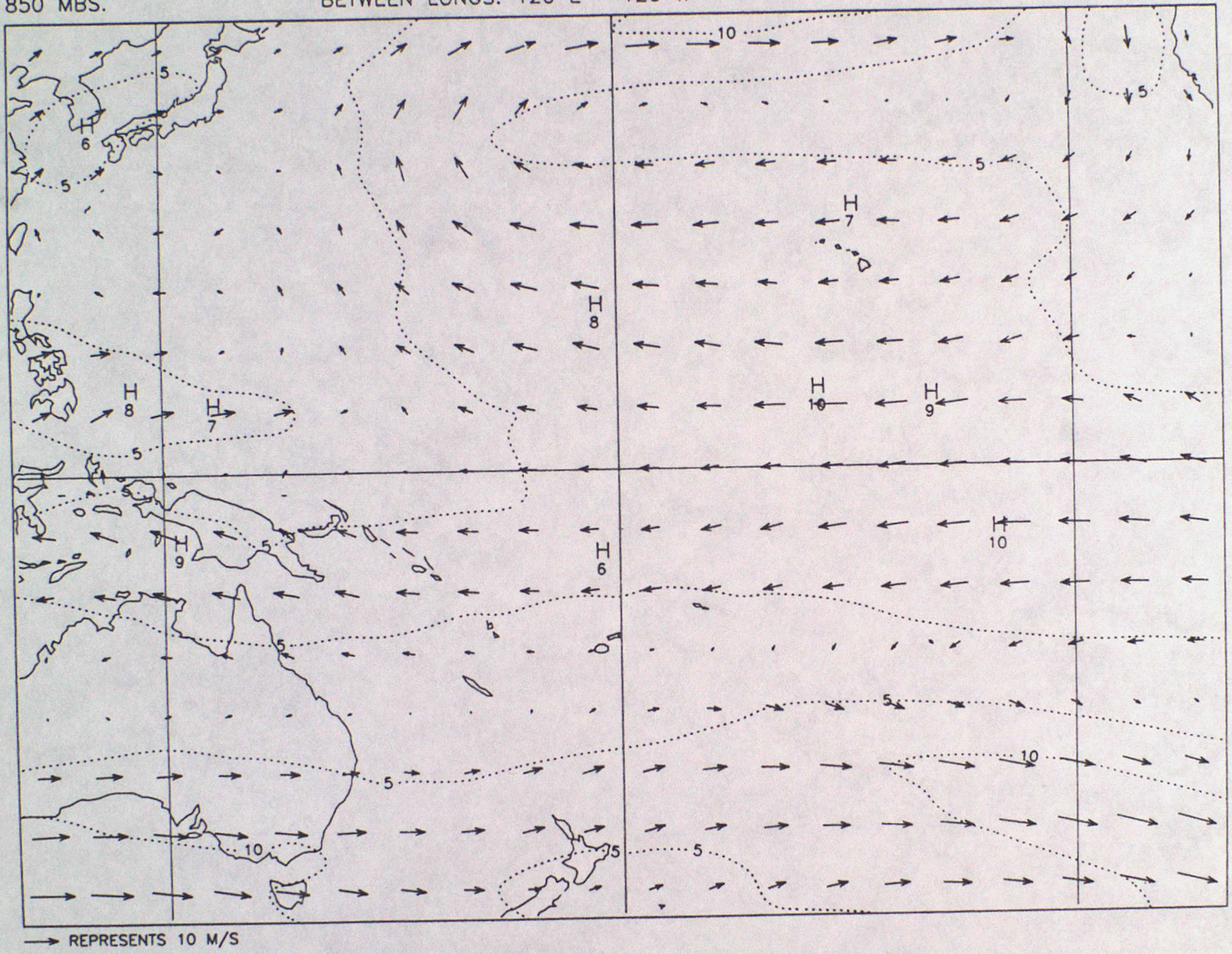
OPERATIONAL ARCHIVE MEANS.   JULY   1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
850 MBS.   BETWEEN LONGS. 0 E - 120 E



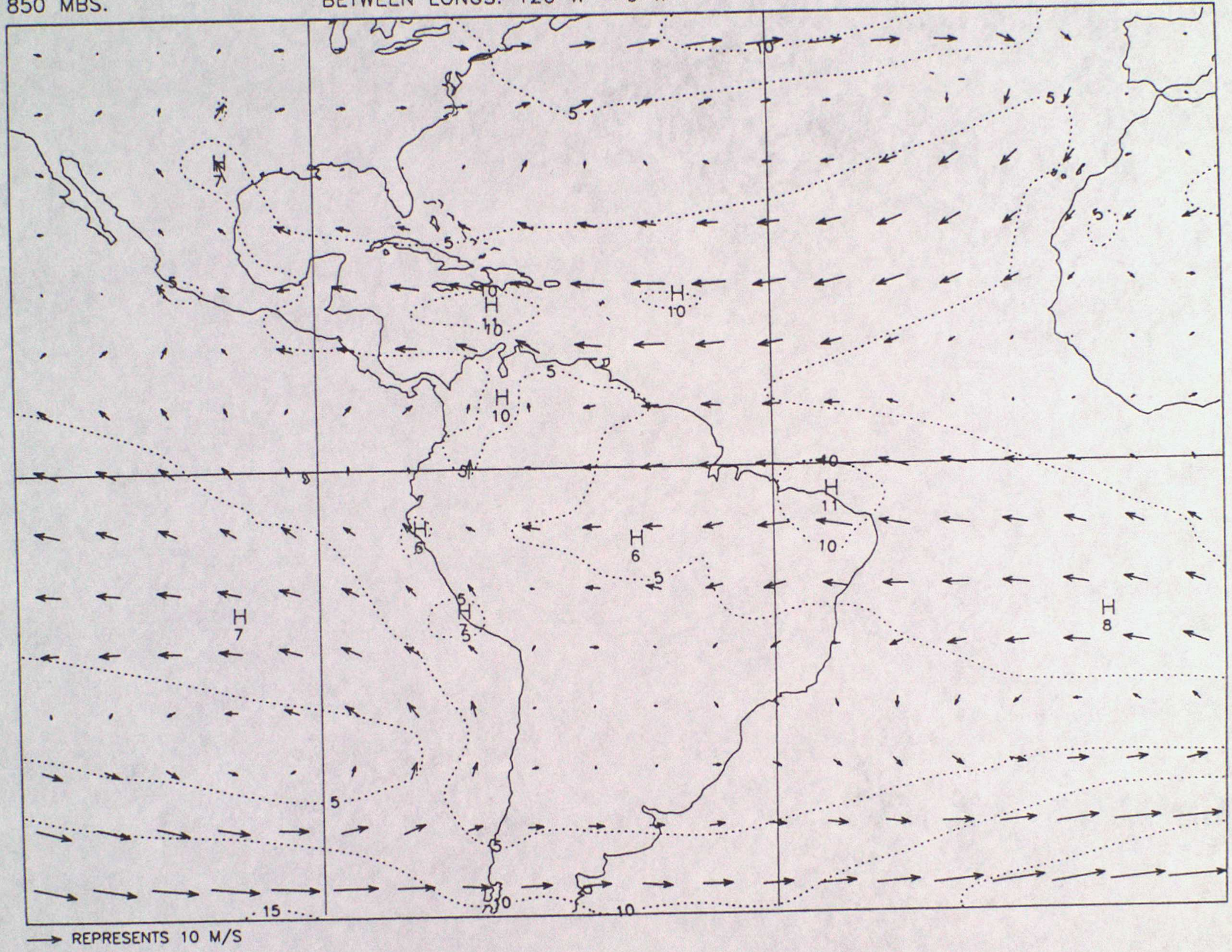
H 7
H 10
H 9
H 7
H 21
20
15
10
H 12
H 7
H 12
H 10
H 7
H 6
H 5
5
10

→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JULY 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
850 MBS. BETWEEN LONGS. 120 E - 120 W

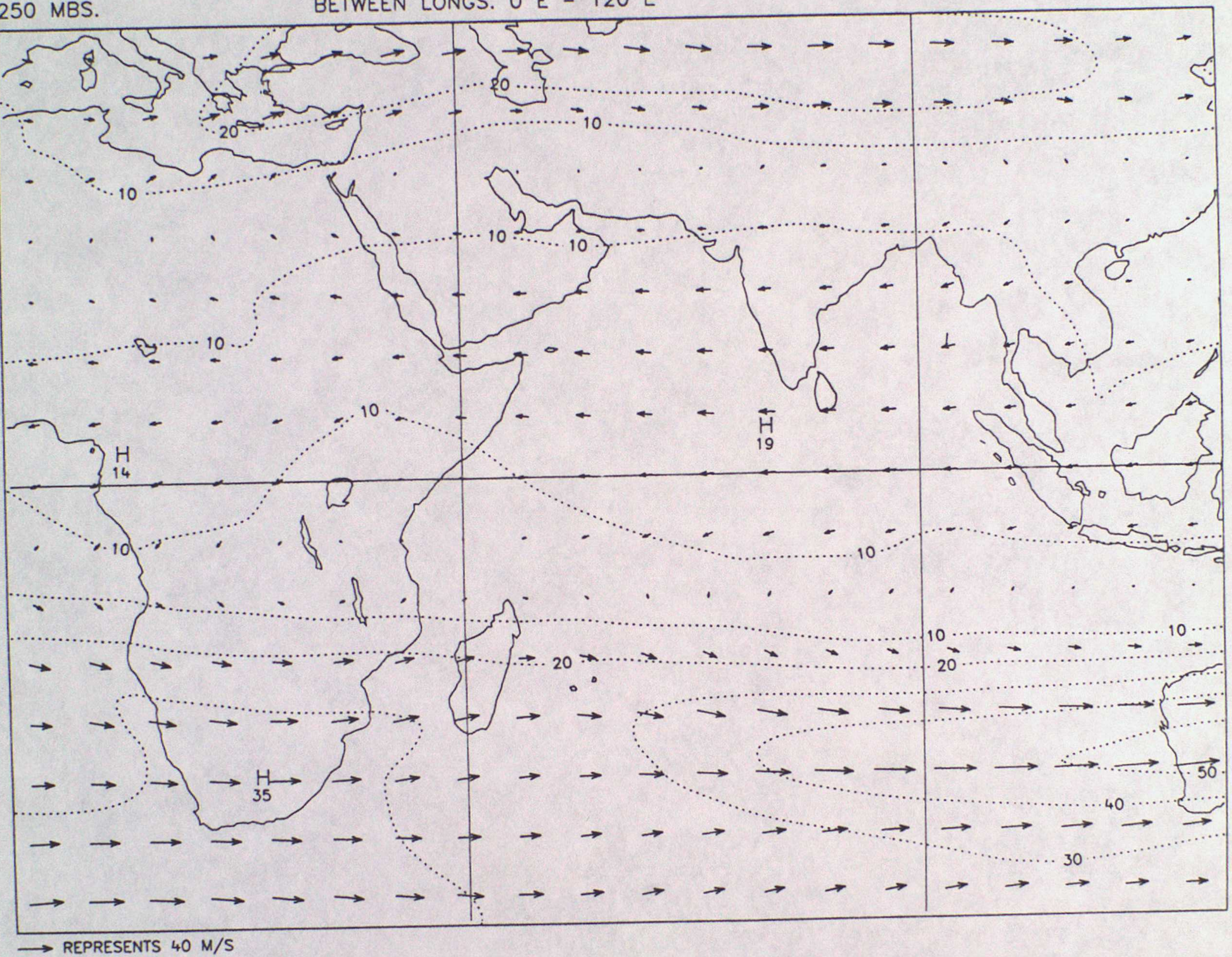

H 6
H 8
H 7
H 9
H 8
H 6
H 7
H 10
H 9
H 10
5
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JULY 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
850 MBS. BETWEEN LONGS. 120 W - 0 W



H
H 10
H 11
H 10
H 11
H 6
H 6
H 7
H 8
H 7
5
10
15
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JULY 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
250 MBS. BETWEEN LONGS. 0 E - 120 E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10
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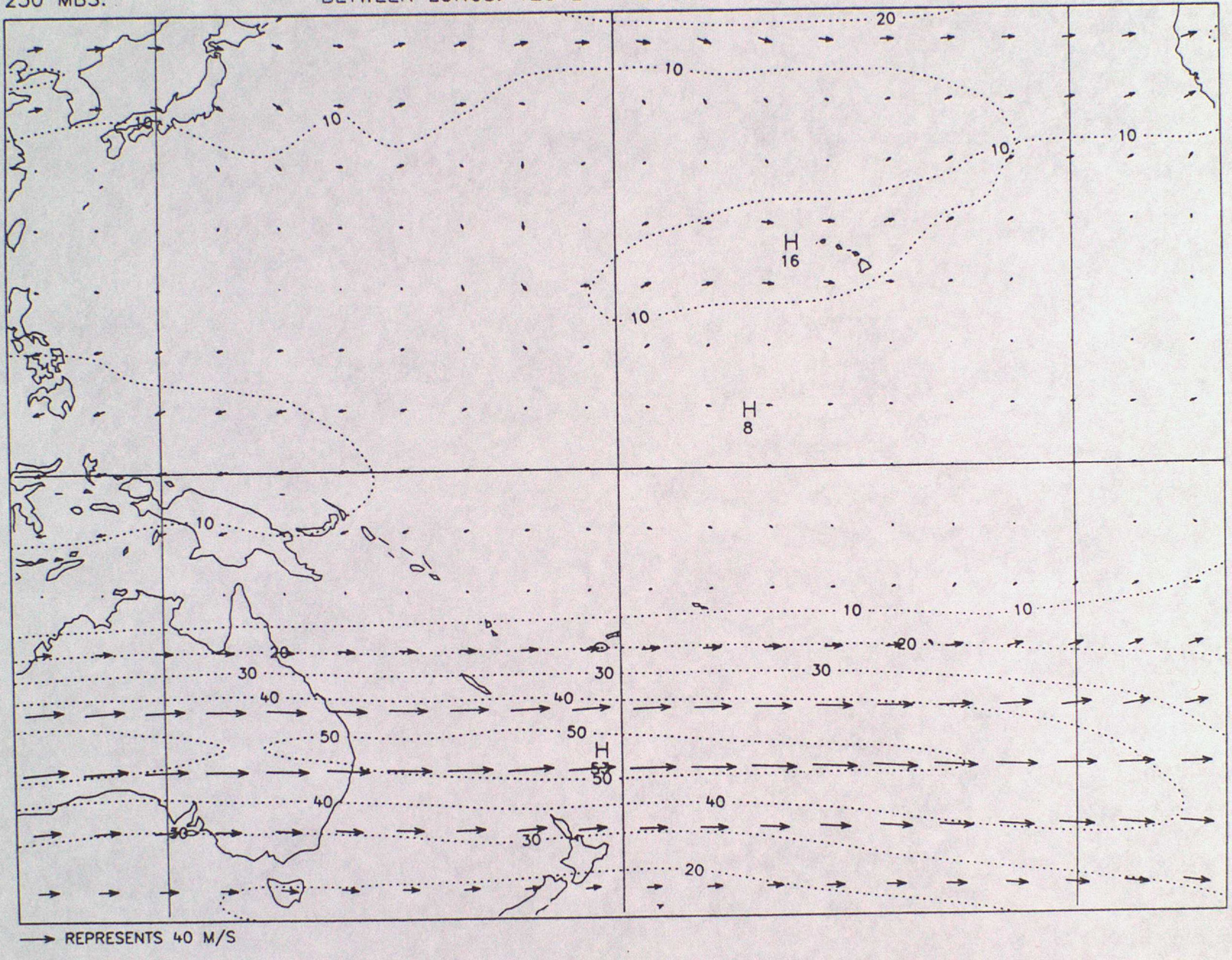
10
H
14
H
19
L
10
10
10
10
20
20
H
35
50
40
30
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JULY 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
250 MBS. BETWEEN LONGS. 120 E - 120 W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8
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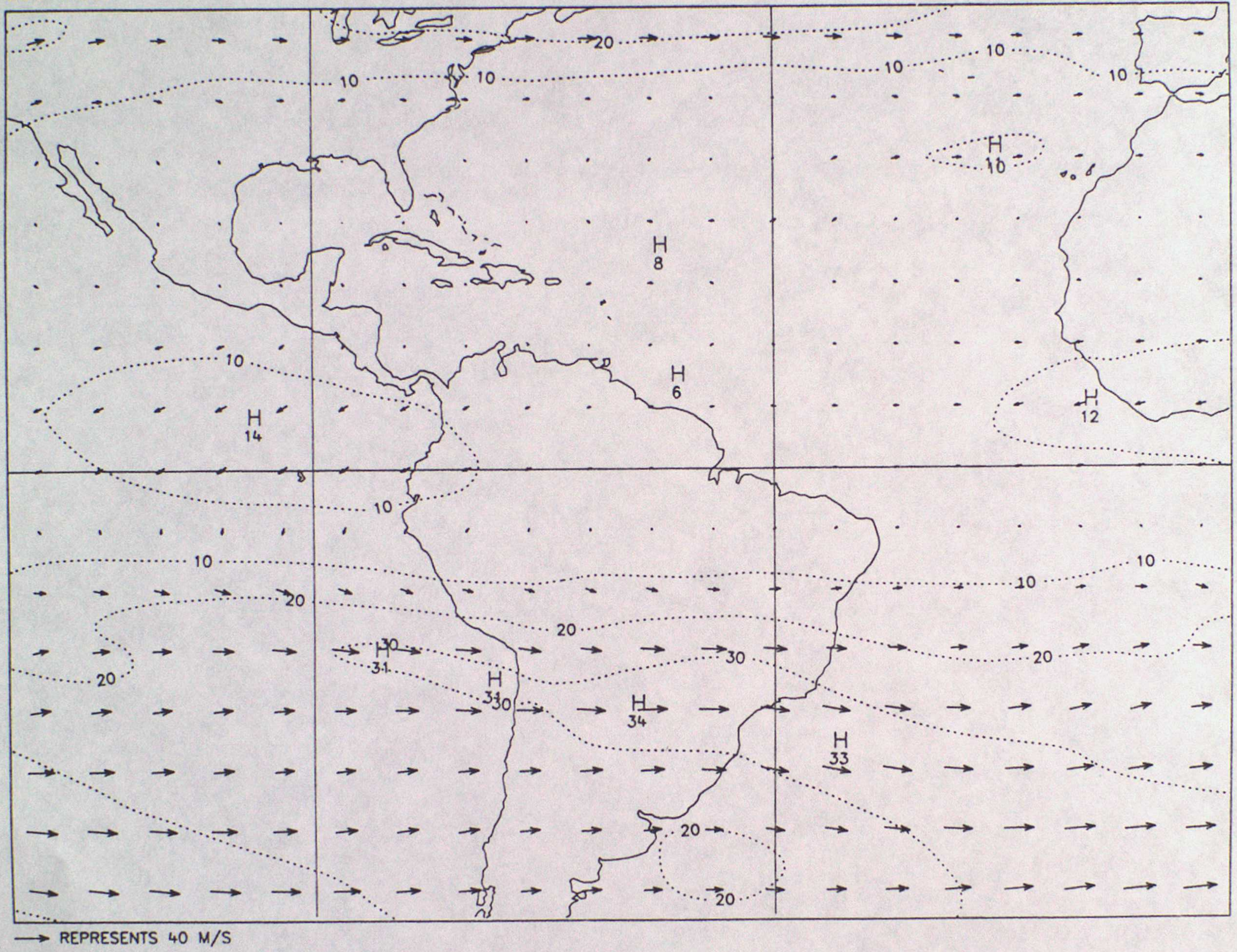
10
10
20
20
30
30
30
40
40
50
50
H
53
50
40
40
30
30
20
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JULY 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/7/1990 DAY 182 TO 12Z ON 31/7/1990 DAY 212
250 MBS. BETWEEN LONGS. 120 W - 0 W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6
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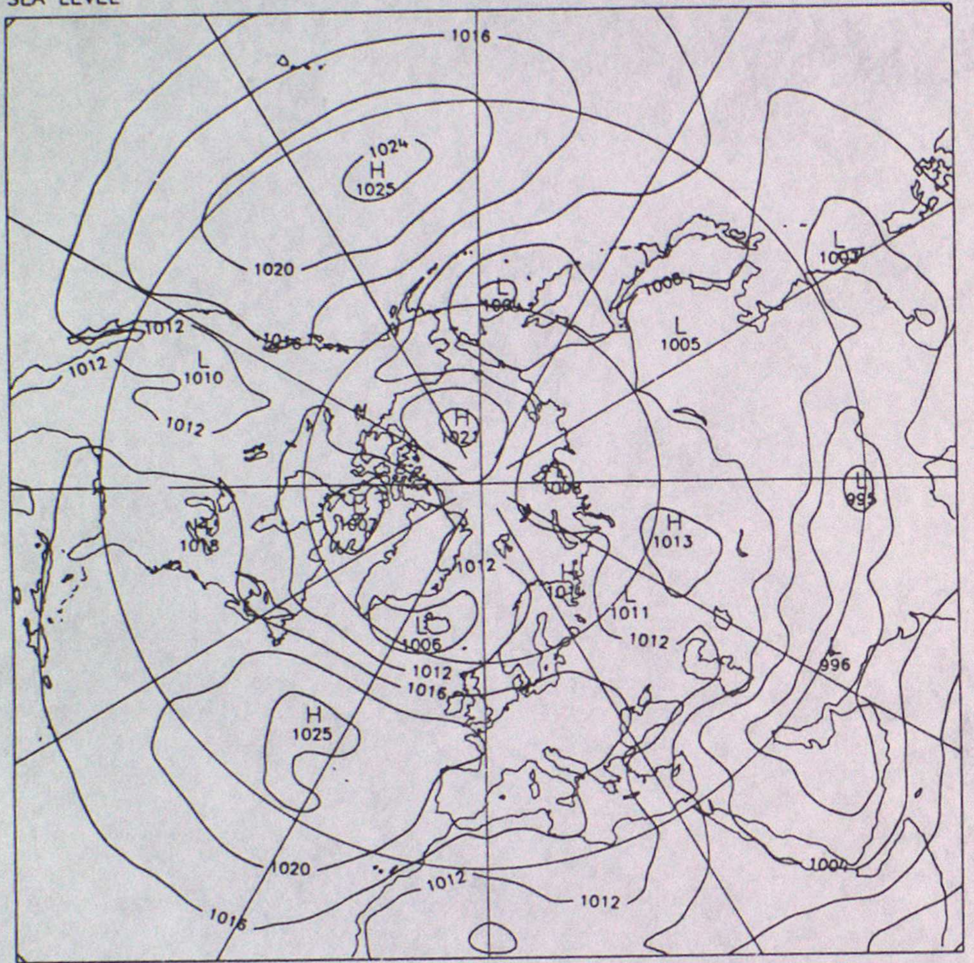
20
20
20
H
31
30
H
31
30
30
H
34
H
33
20
20
20
→ REPRESENTS 40 M/S

AUGUST
1990

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
PMSL
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
SEA LEVEL


1016
1024
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1025
1020
L
1007
1008
L
1004
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1010
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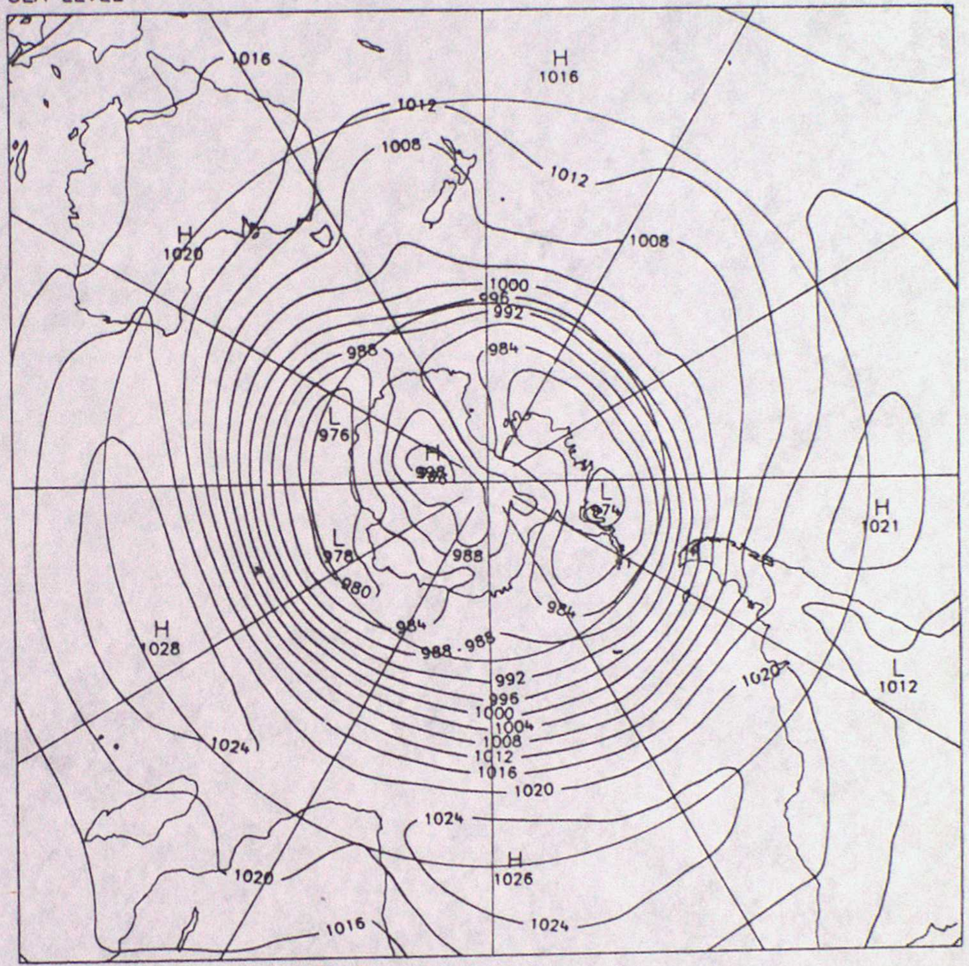
H
1013
L
995
1007
1018
1012
H
1014
L
1011
1012
L
1006
996
1012
1016
H
1025
1020
1004
1012
1012
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
PMSL
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
SEA LEVEL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992
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L
976
H
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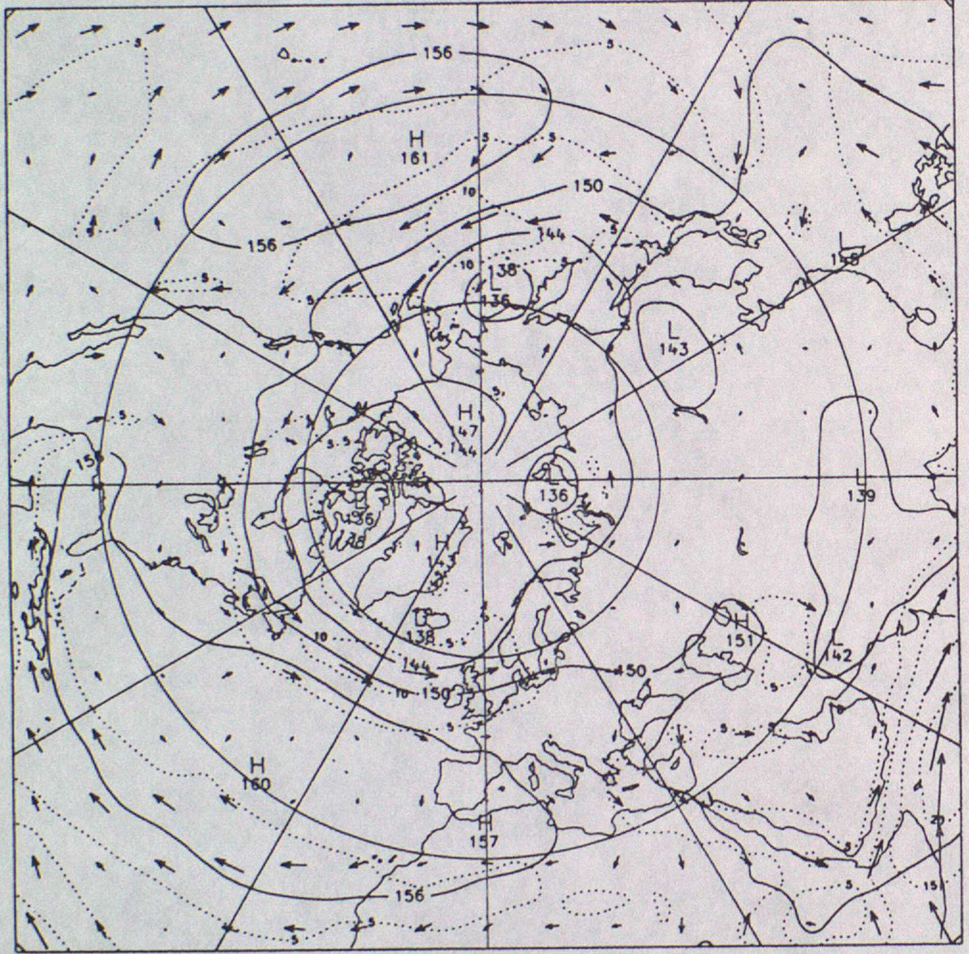
L
974
H
1021
L
978
988
980
984
984
988
988
992
996
1000
1004
1008
1012
1016
1020
H
1028
1024
1020
L
1012
1024
H
1026
1020
1016
1024

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 850 MB


156
H
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L
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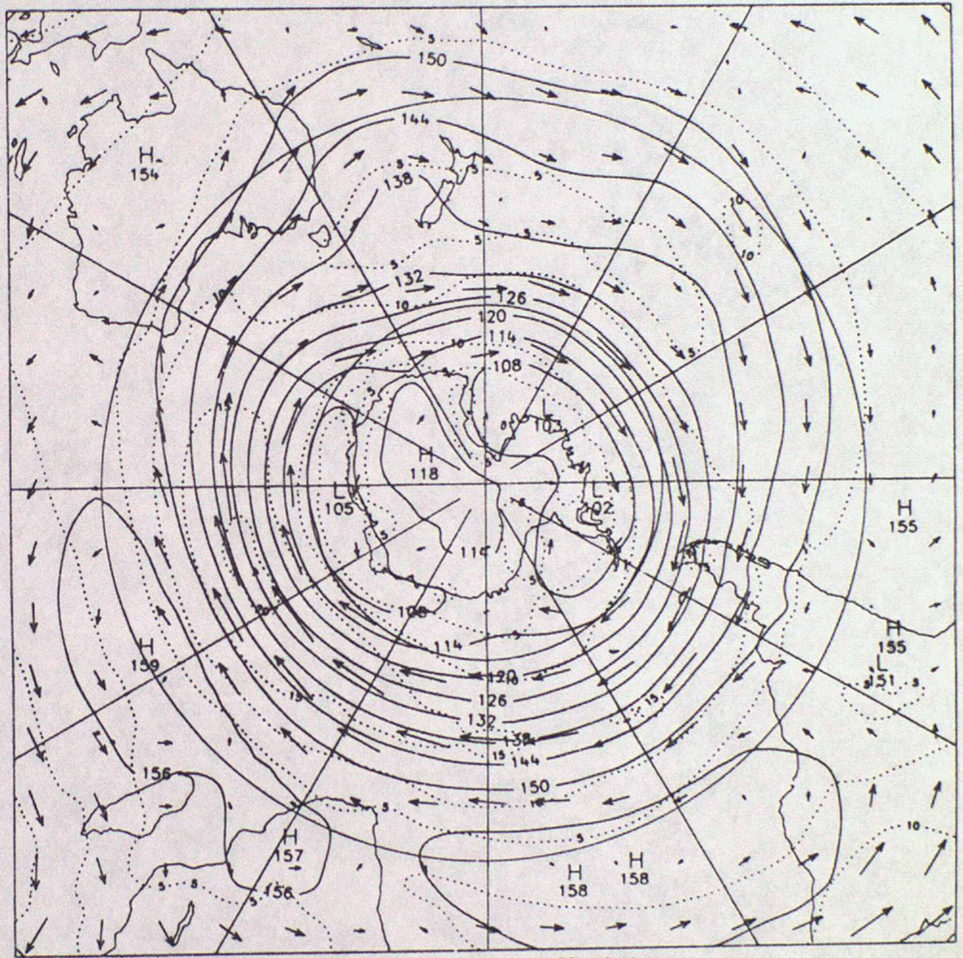
L
139
136
138
H
151
L
142
144
150
150
H
160
H
157
156
5
10
15
20

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 850 MB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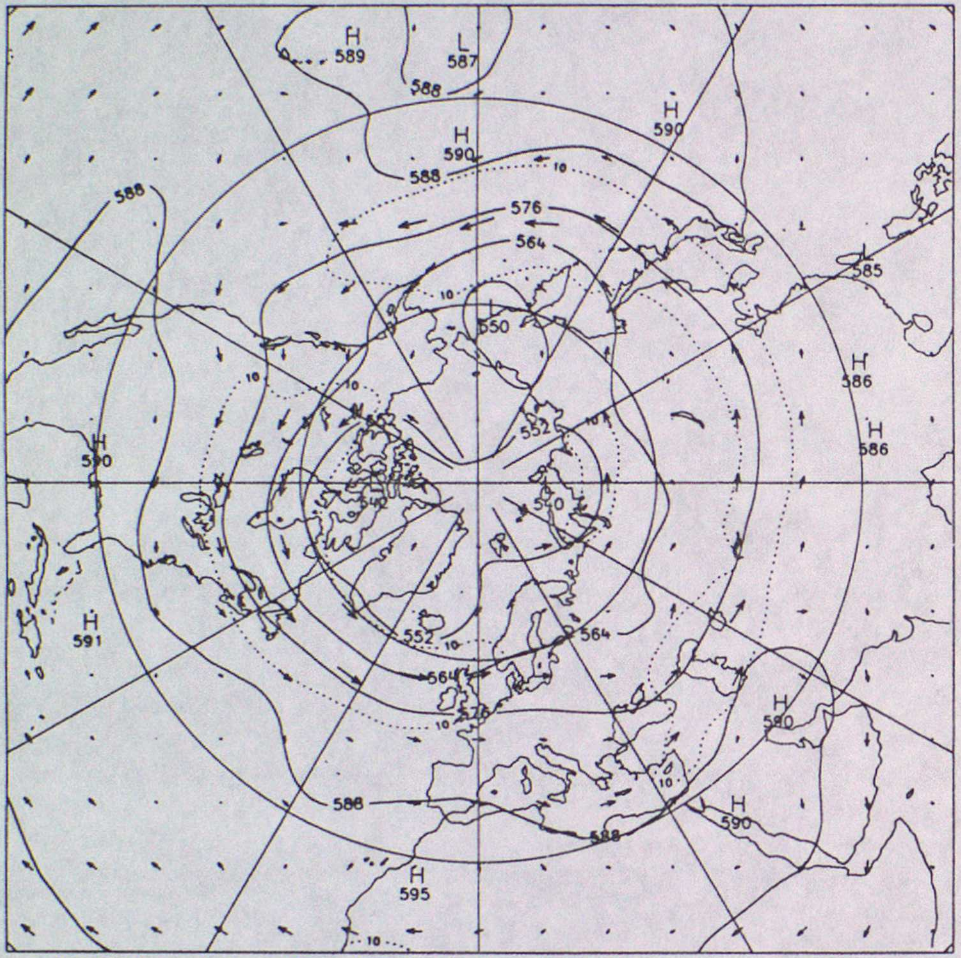
155
H
159
114
120
126
132
138
144
150
H
155
L
151
156
H
157
156
H
158
H
158
5
10
15

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   AUGUST   1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 500 MB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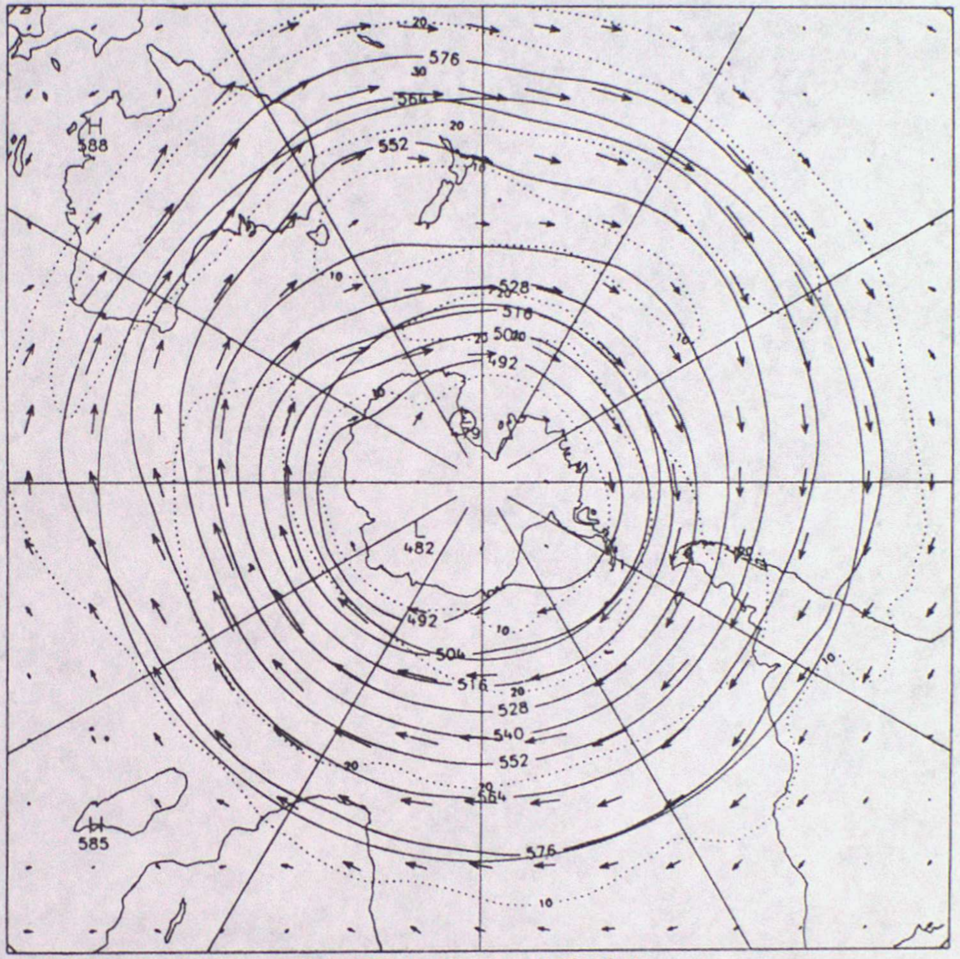
552
540
542
H 591
10
552
564
564
576
10
H 590
588
10
H 590
588
H 595
10

→ REPRESENTS 20 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   AUGUST   1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 500 MB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576
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10
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528
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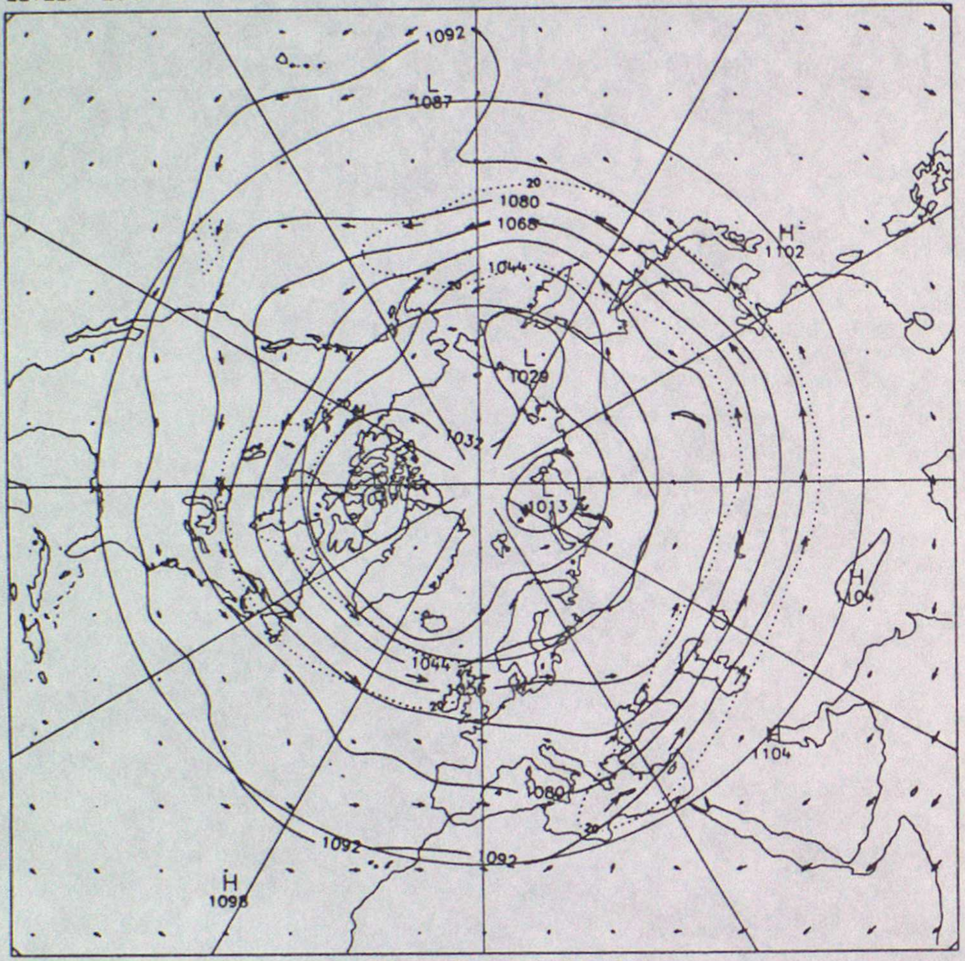
504
492
10
L 482
492
10
504
516
20
528
540
552
20
564
H 585
576
10

→ REPRESENTS 20 M/S   CONTOUR INTERVAL: 120 M   UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 250 MB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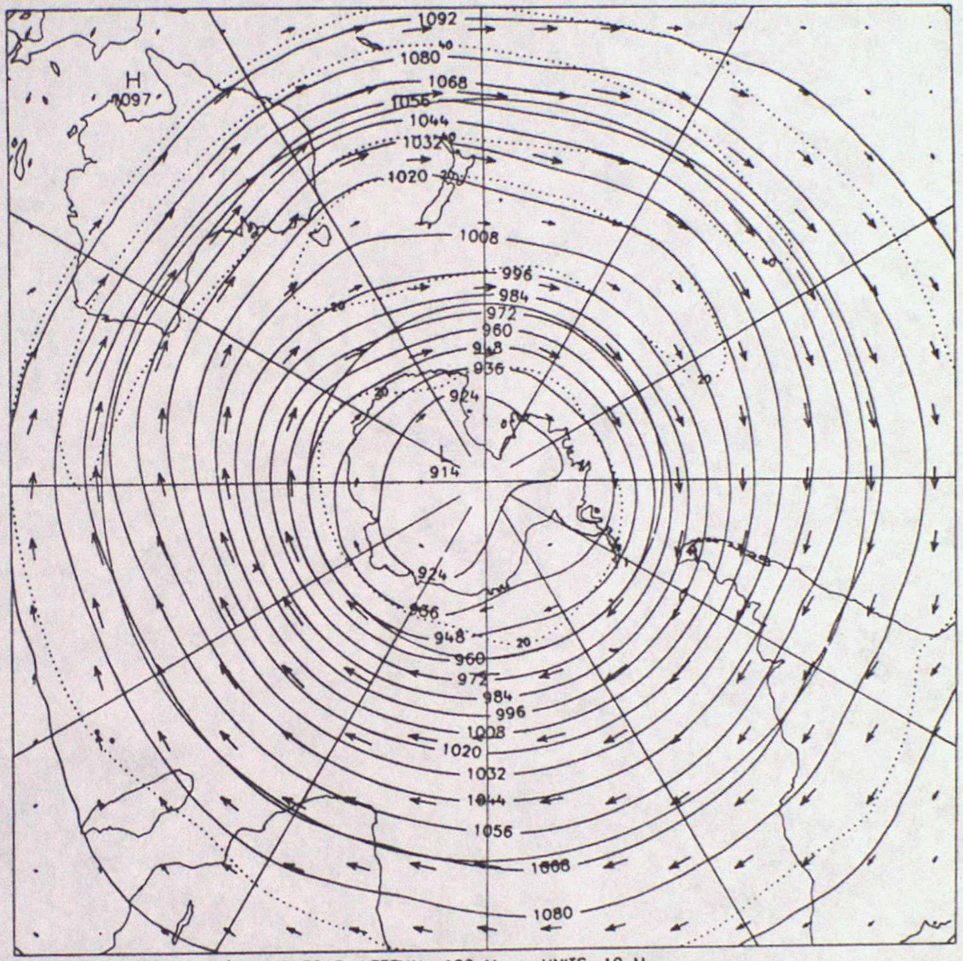
L
1029
1032
L
1013
H
1102
H
1104
1044
1056
20
1080
20
1092
1092
H
1098

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 250 MB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984
972
960
948
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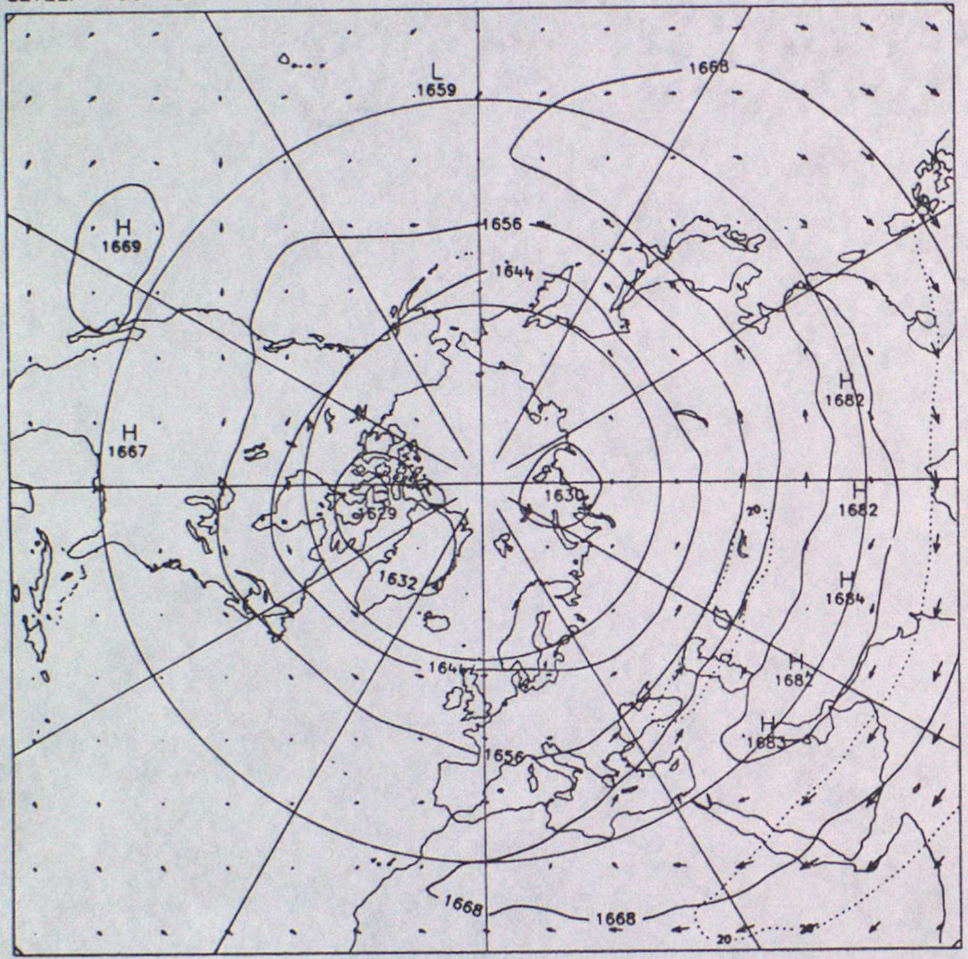
924
20
L
914
924
936
948
20
960
972
984
996
1008
1020
1032
1044
1056
1068
1080
20
40
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 100 MB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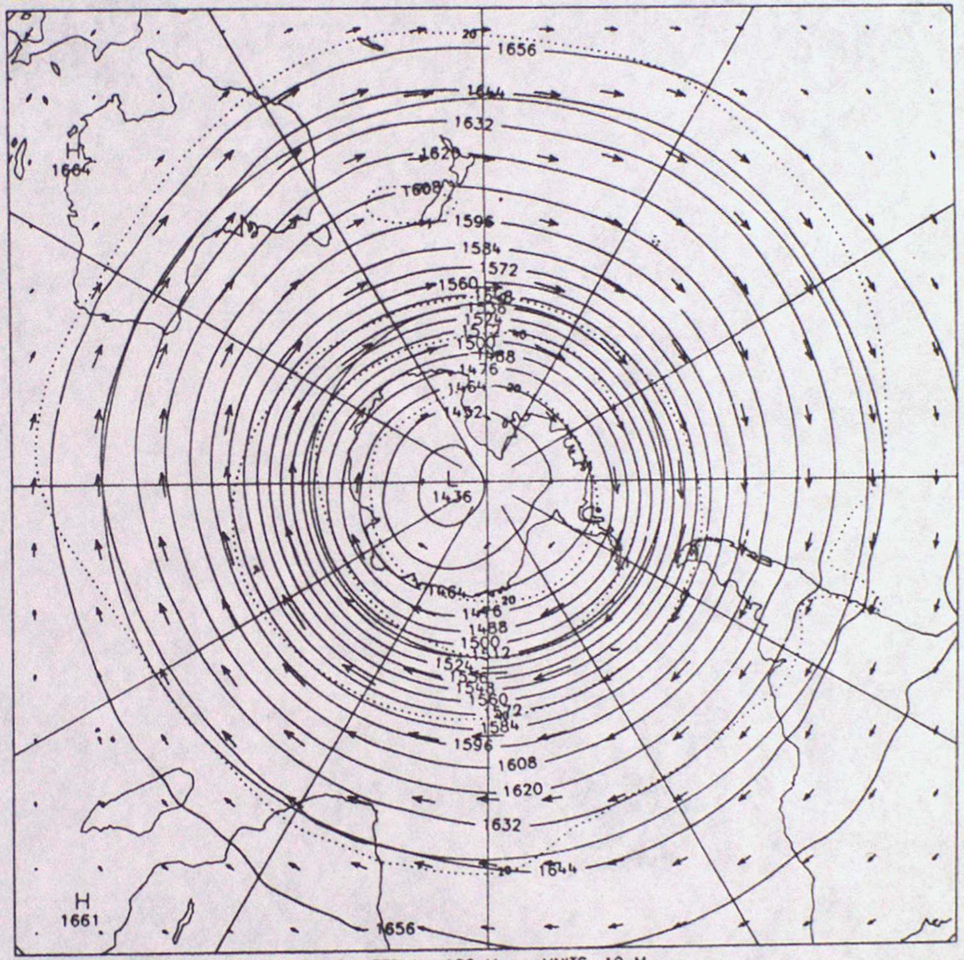
1682
H
1682
H
1684
H
1682
H
1683
1644
1656
1668
1668
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 100 MB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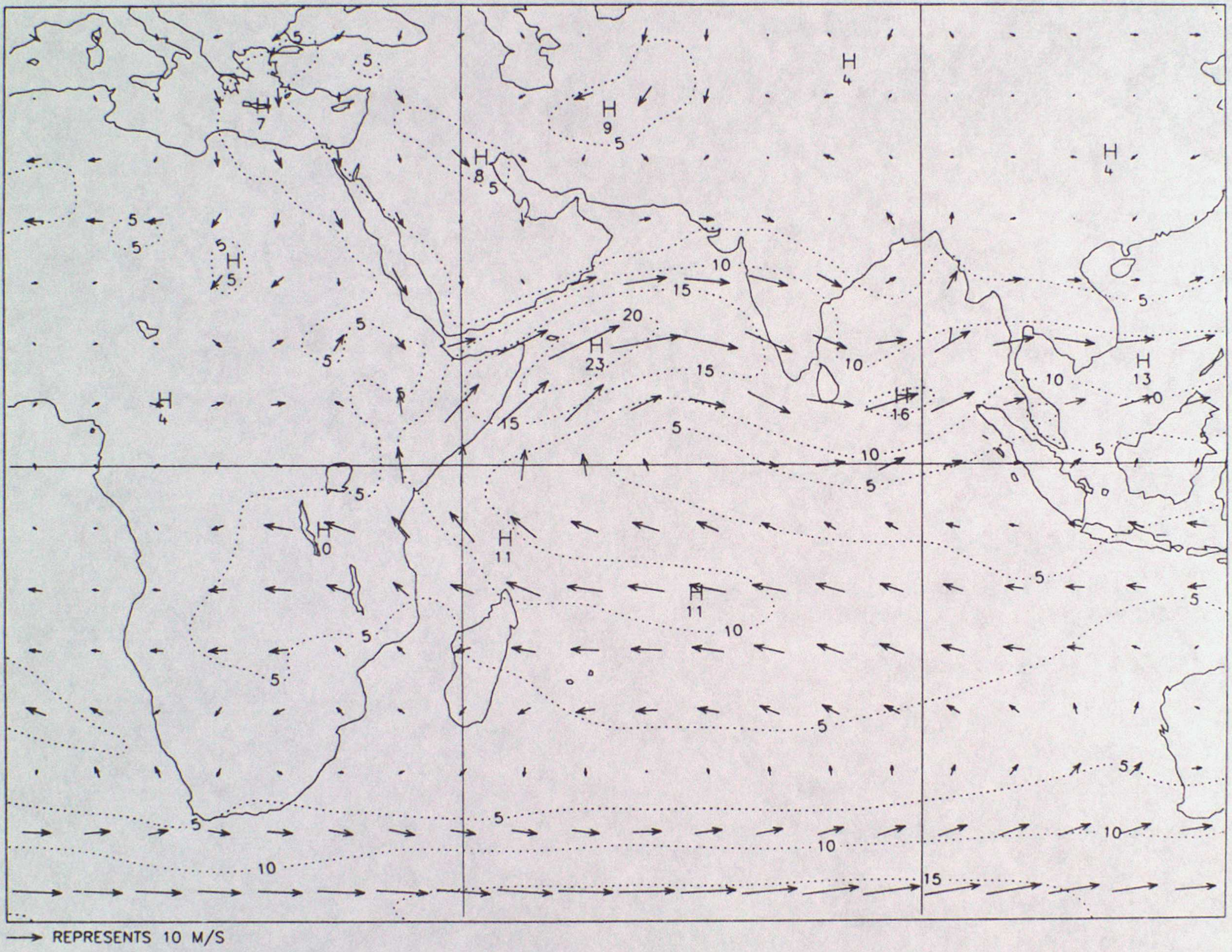
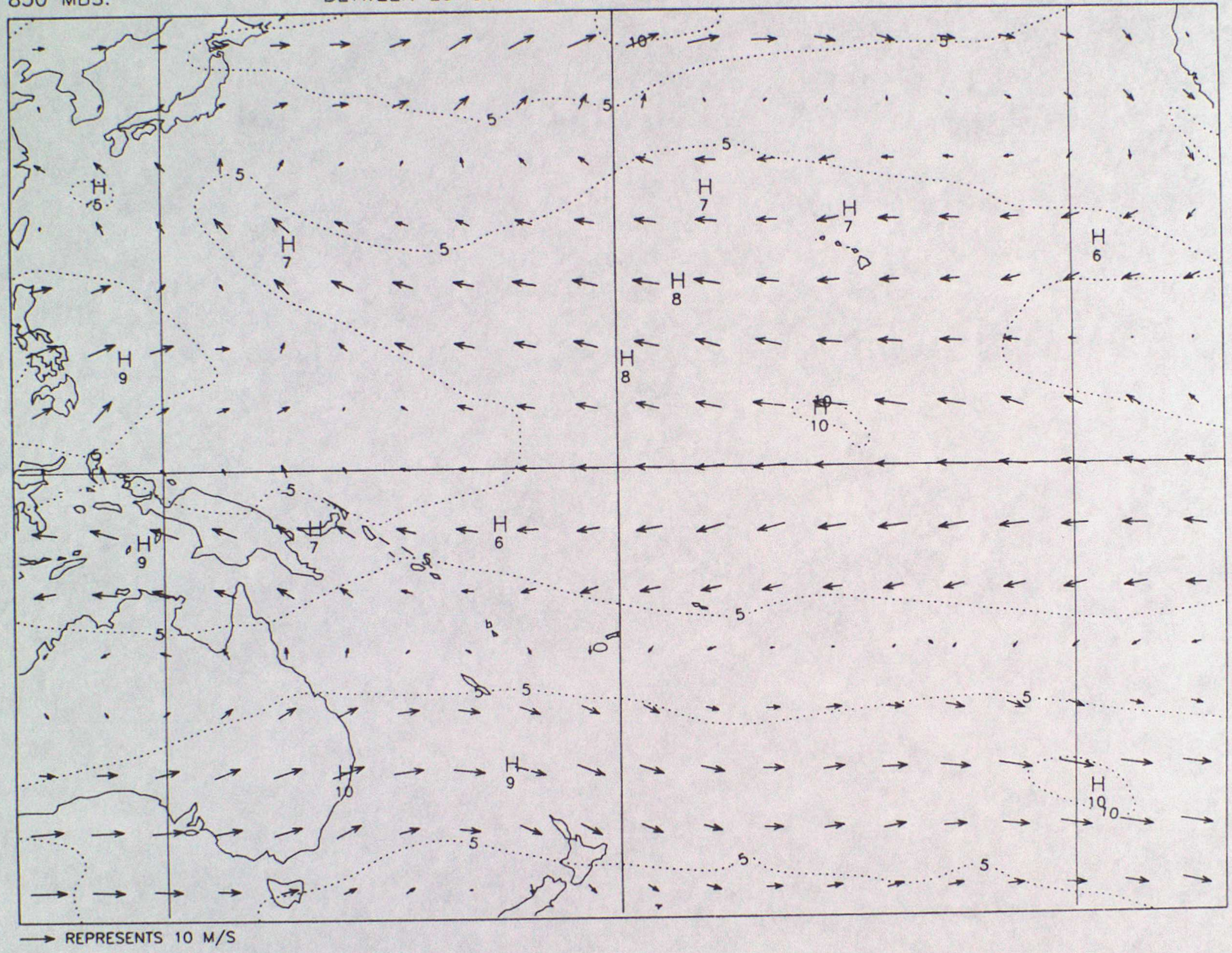
1464
1452
L
1436
H
1664
H
1661
1656
1644
1632
1620
1608
1596
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

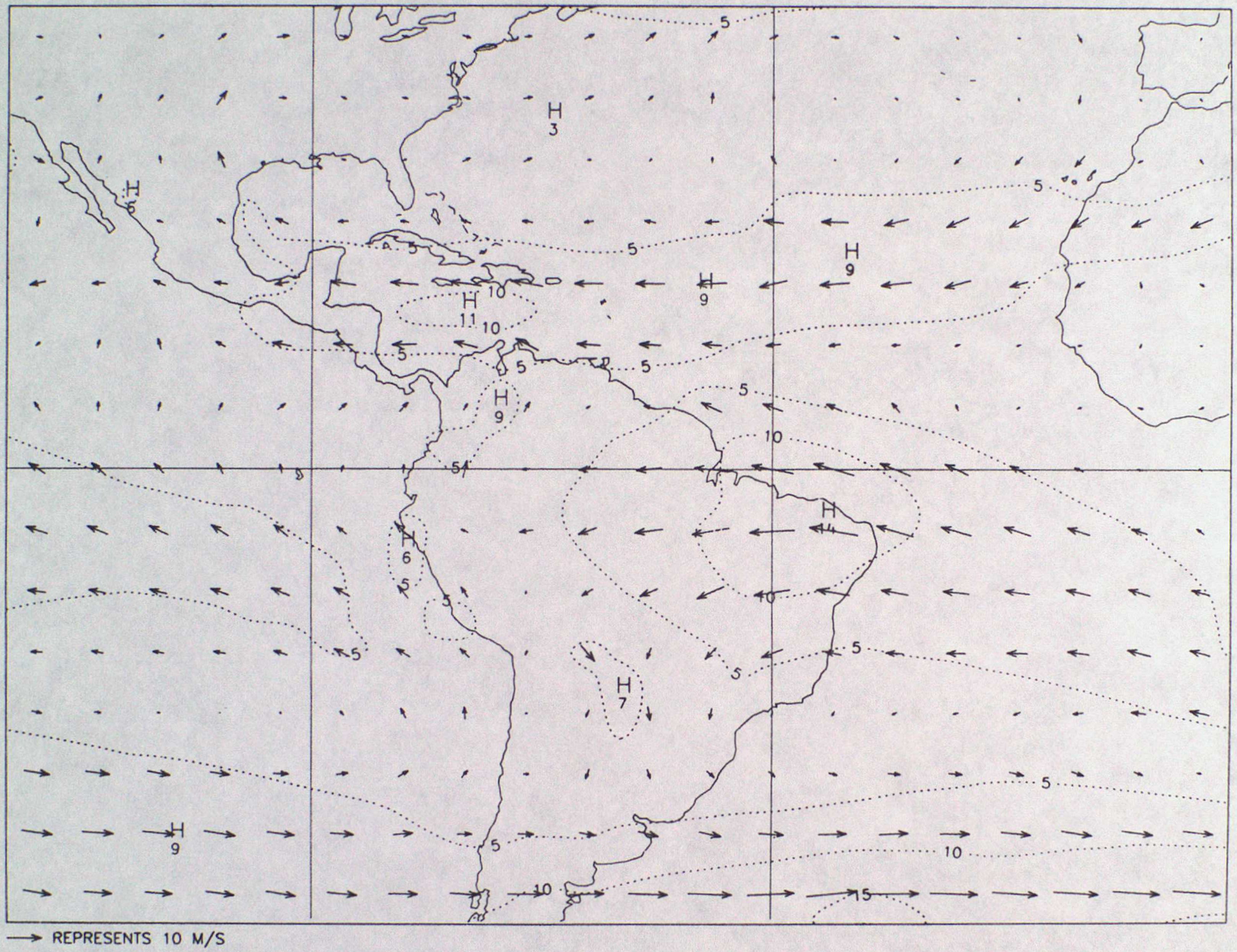
OPERATIONAL ARCHIVE MEANS.   AUGUST   1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
850 MBS.   BETWEEN LONGS. 0 E - 120 E


H 7
H 9
H 4
H 8
H 4
H 5
H 23
H 13
H 4
H 16
H 10
H 11
H 11
→ REPRESENTS 10 M/S

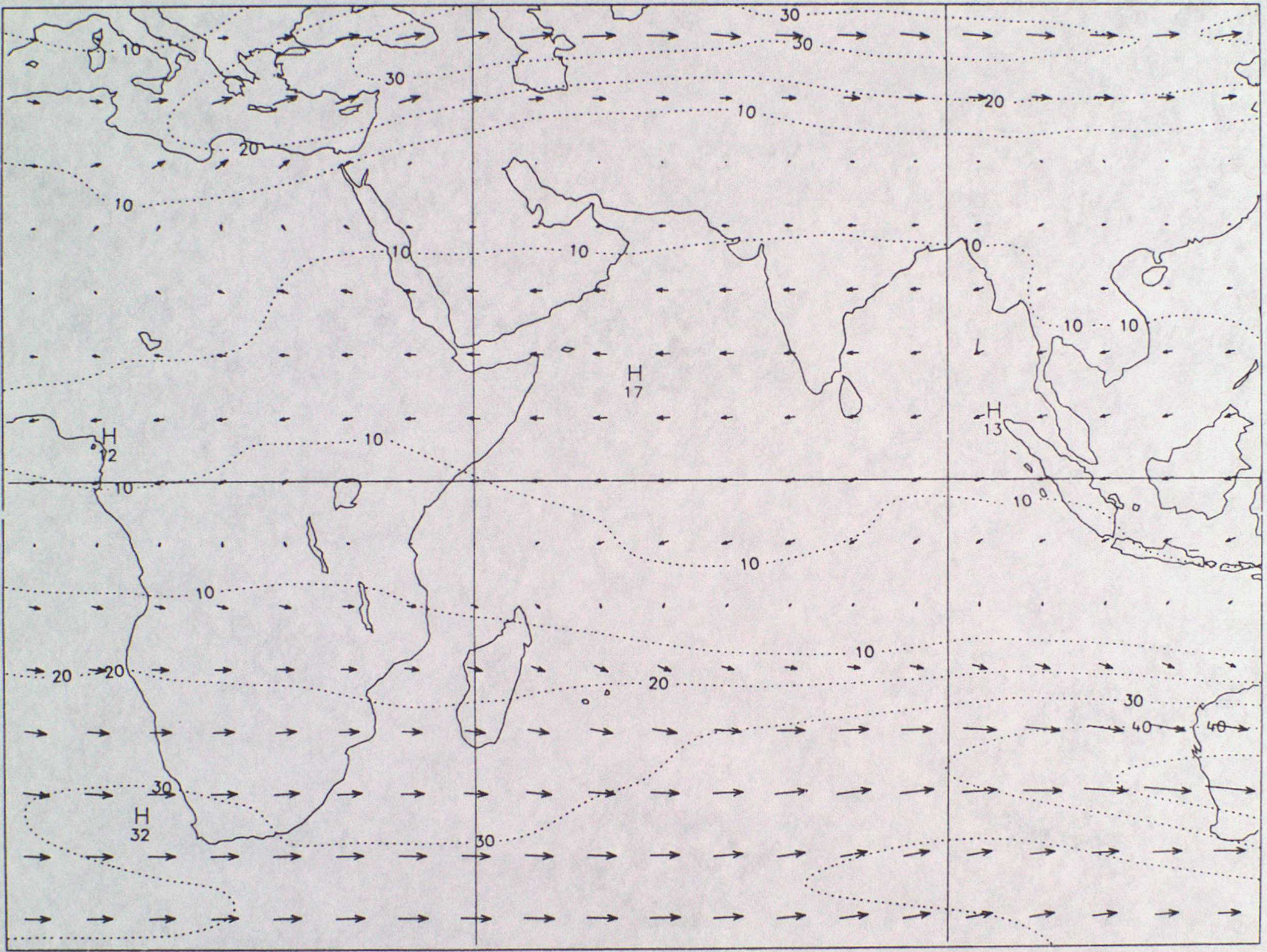
OPERATIONAL ARCHIVE MEANS.   AUGUST   1990
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
850 MBS.   BETWEEN LONGS. 120 E - 120 W


H
5
10
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
850 MBS. BETWEEN LONGS. 120 W - 0 W



OPERATIONAL ARCHIVE MEANS. AUGUST 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
250 MBS. BETWEEN LONGS. 0 E - 120 E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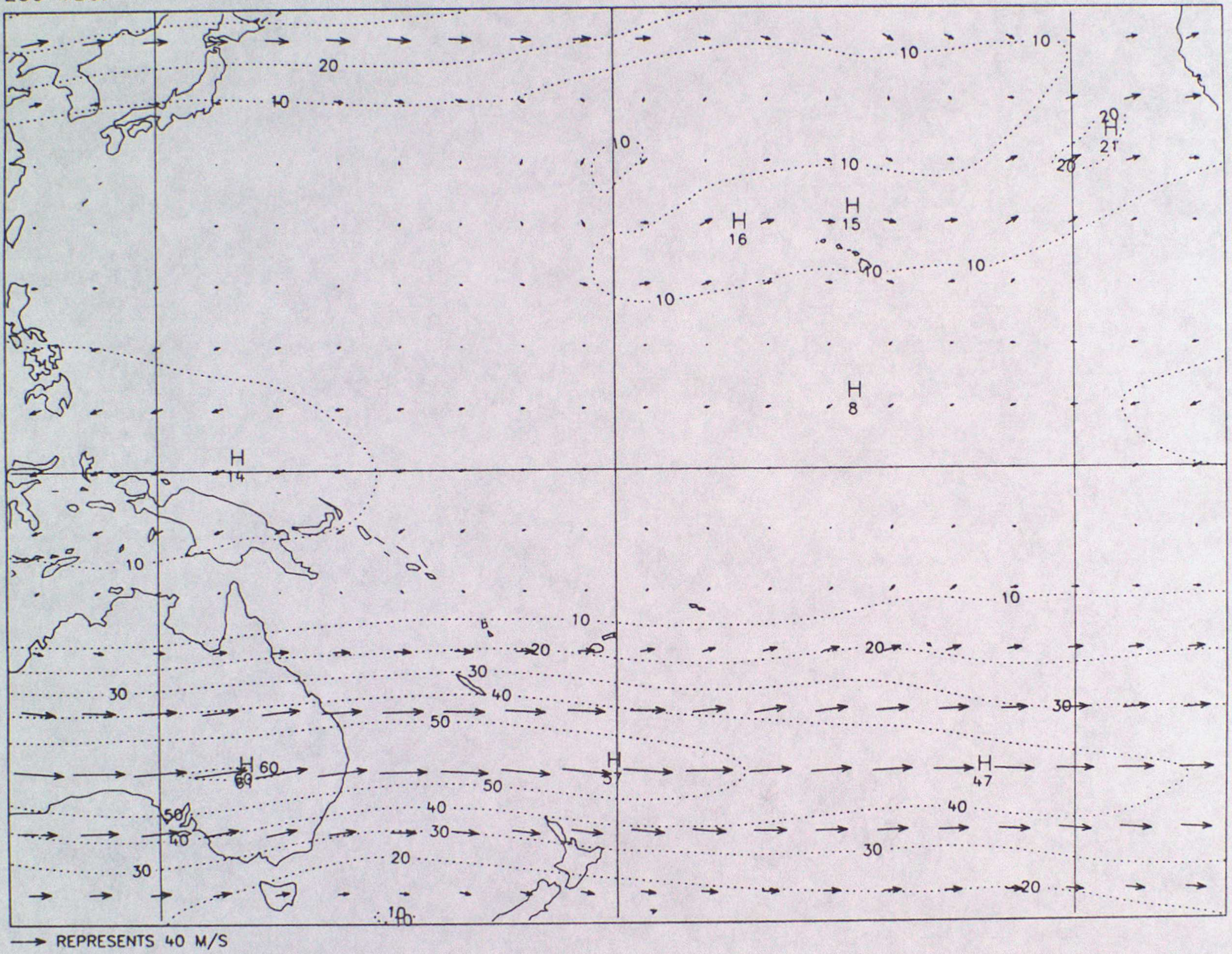
20
10
20
10
10
10
10
10
10
H
17
L
H
13
H
12
10
10
10
10
10
20
20
20
30
40
40
30
H
32
30

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. AUGUST 1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
250 MBS. BETWEEN LONGS. 120 E - 120 W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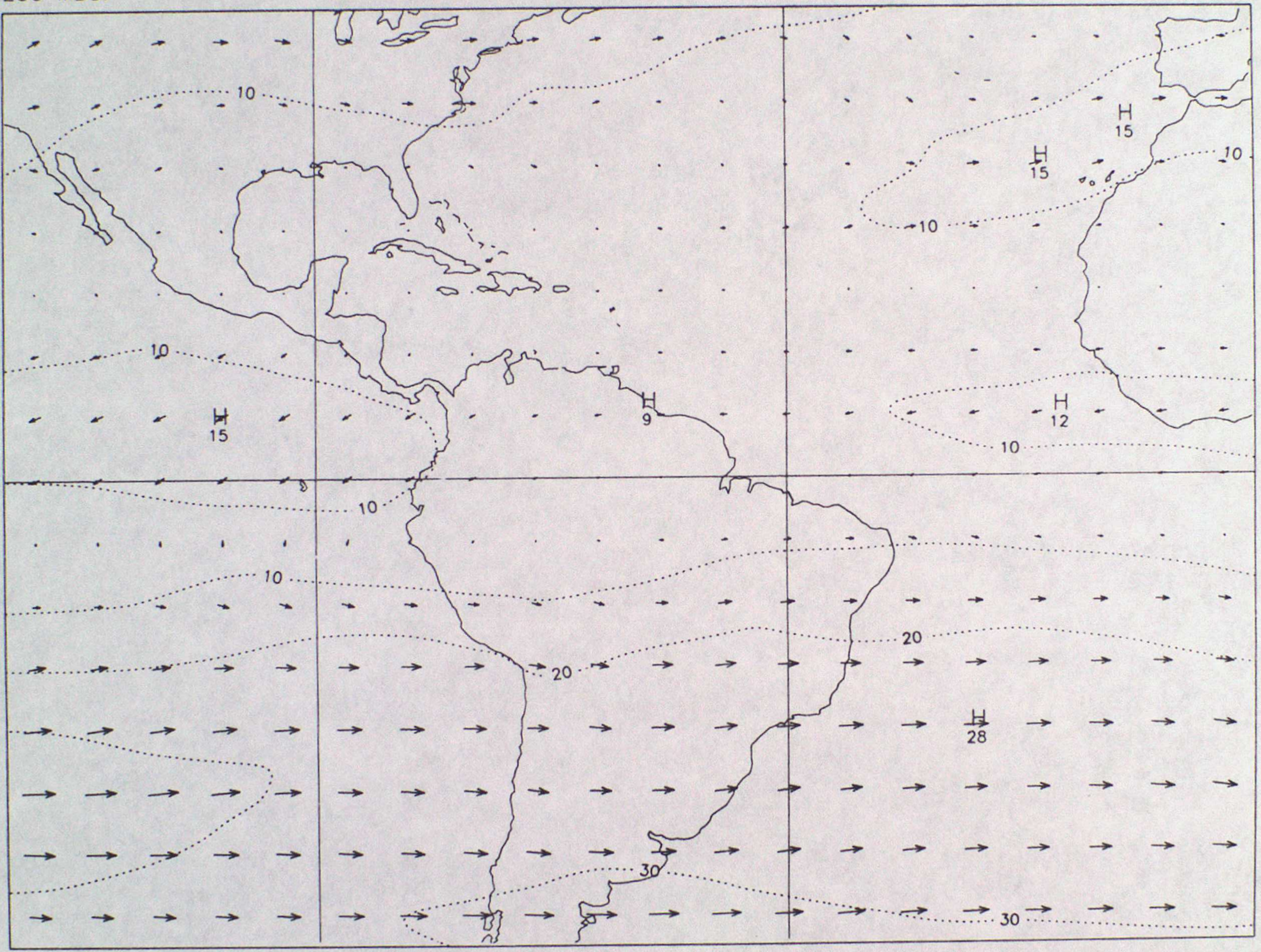
40
50
H
60
69
H
57
H
47
40
50
30
20
10
REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS.   AUGUST   1990
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/8/1990 DAY 213 TO 12Z ON 31/8/1990 DAY 243
250 MBS.   BETWEEN LONGS. 120 W - 0 W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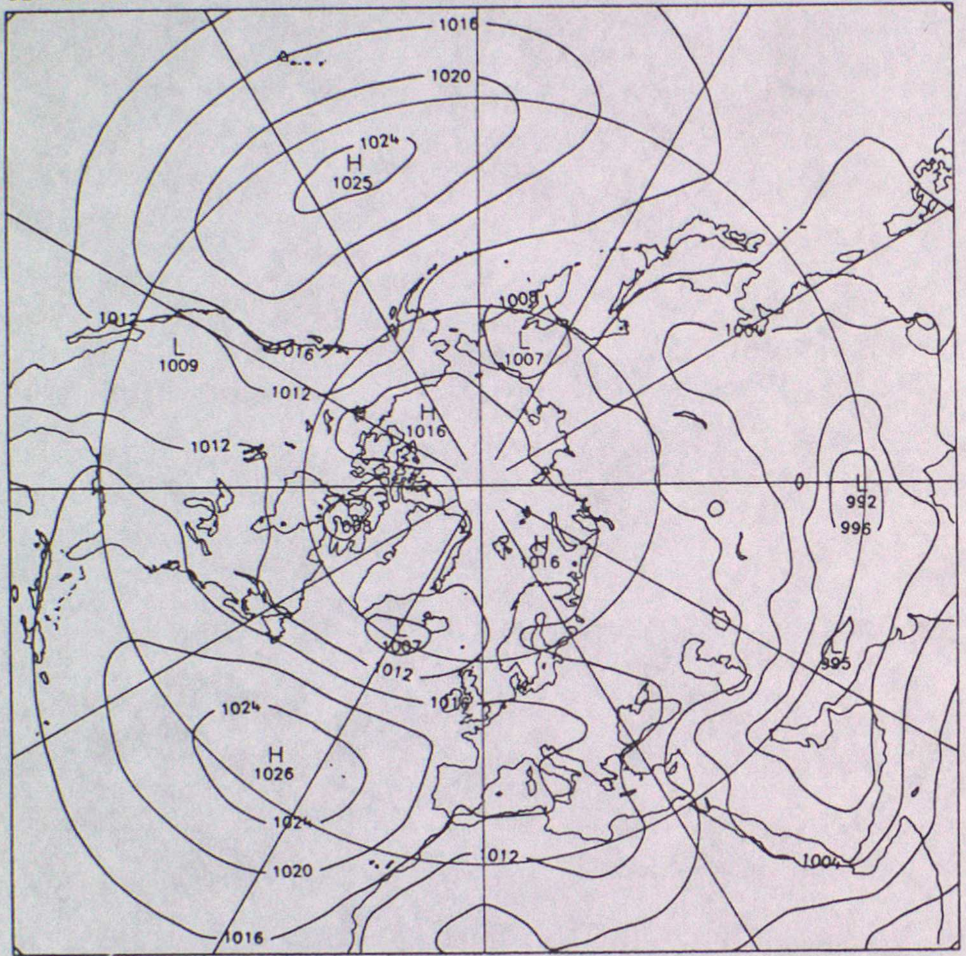
H 15
H 15
H 15
H 9
H 12
H 28

→ REPRESENTS 40 M/S

JUNE/JULY/AUGUST
1990

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
PMSL
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
SEA LEVEL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1004
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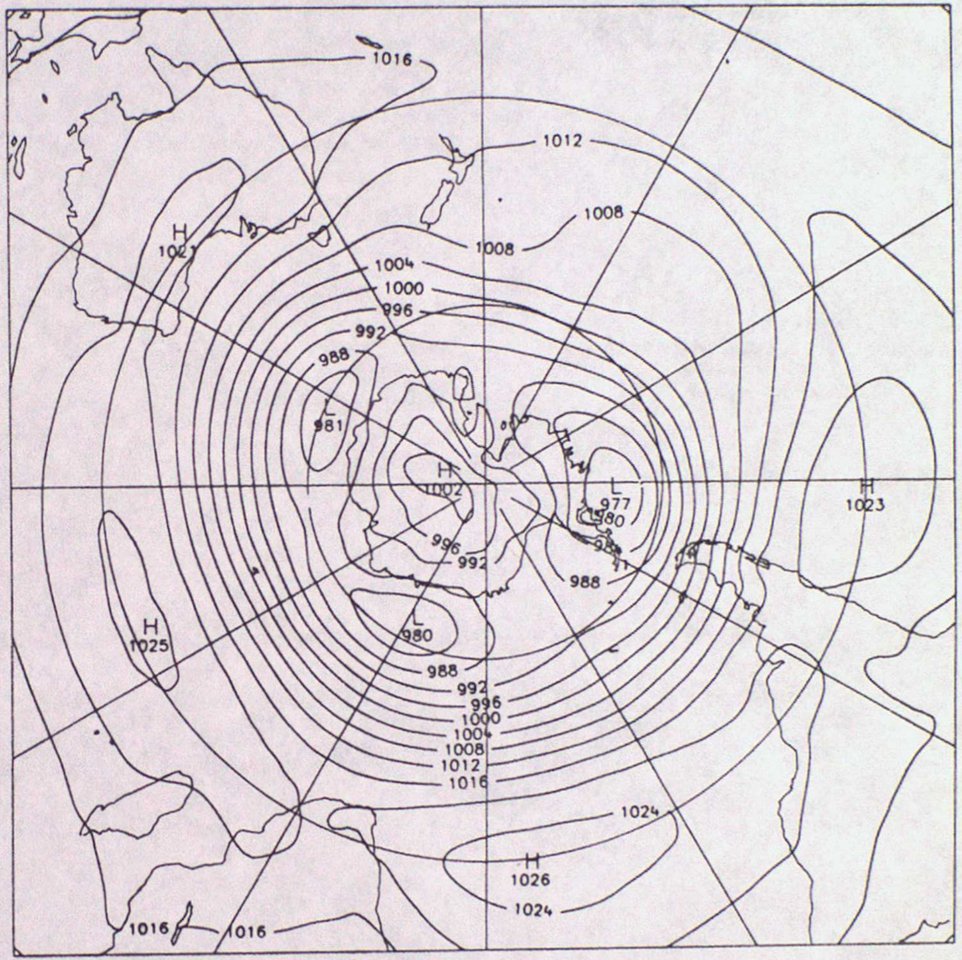
995
H
1016
1007
1012
1016
1024
H
1026
1024
1020
1012
1004
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
PMSL
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
SEA LEVEL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1002
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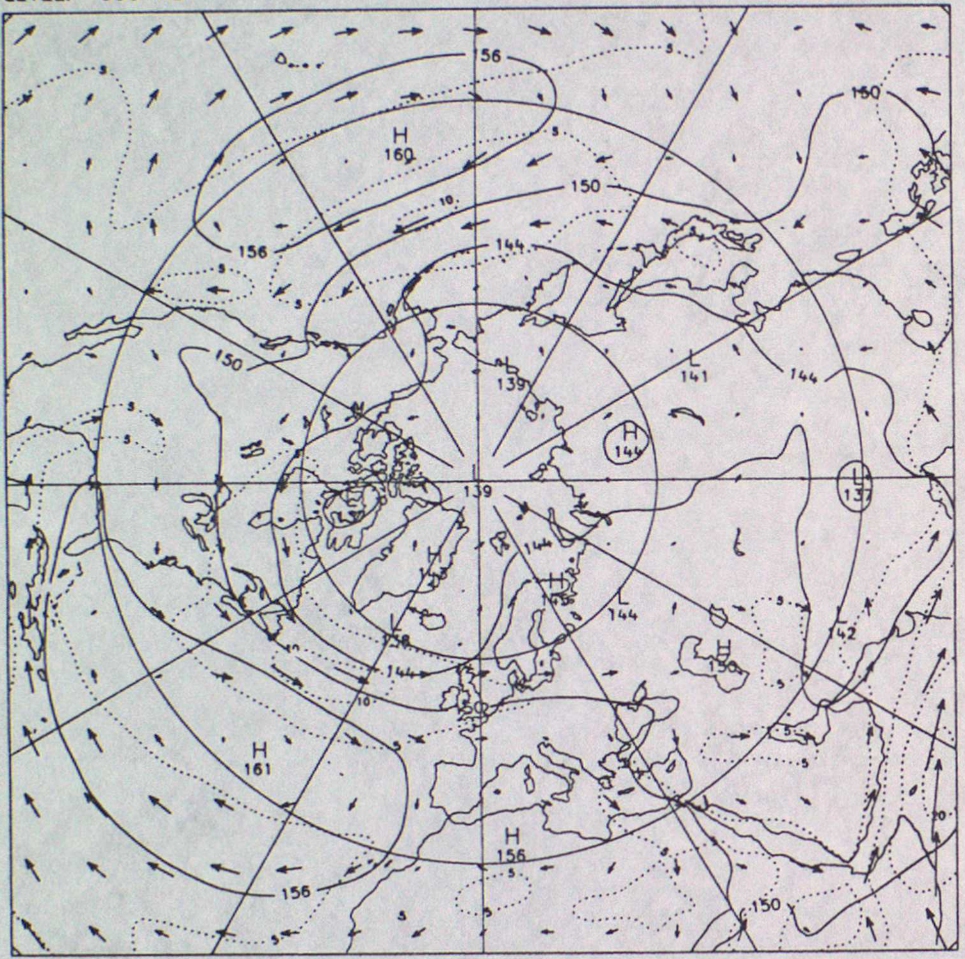
H
1023
H
1025
L
980
988
992
996
1000
1004
1008
1012
1016
1024
H
1026
1024
1016
1016

CONTOUR INTERVAL: 4 MB UNITS: MB

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 850 MB


156
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H
144
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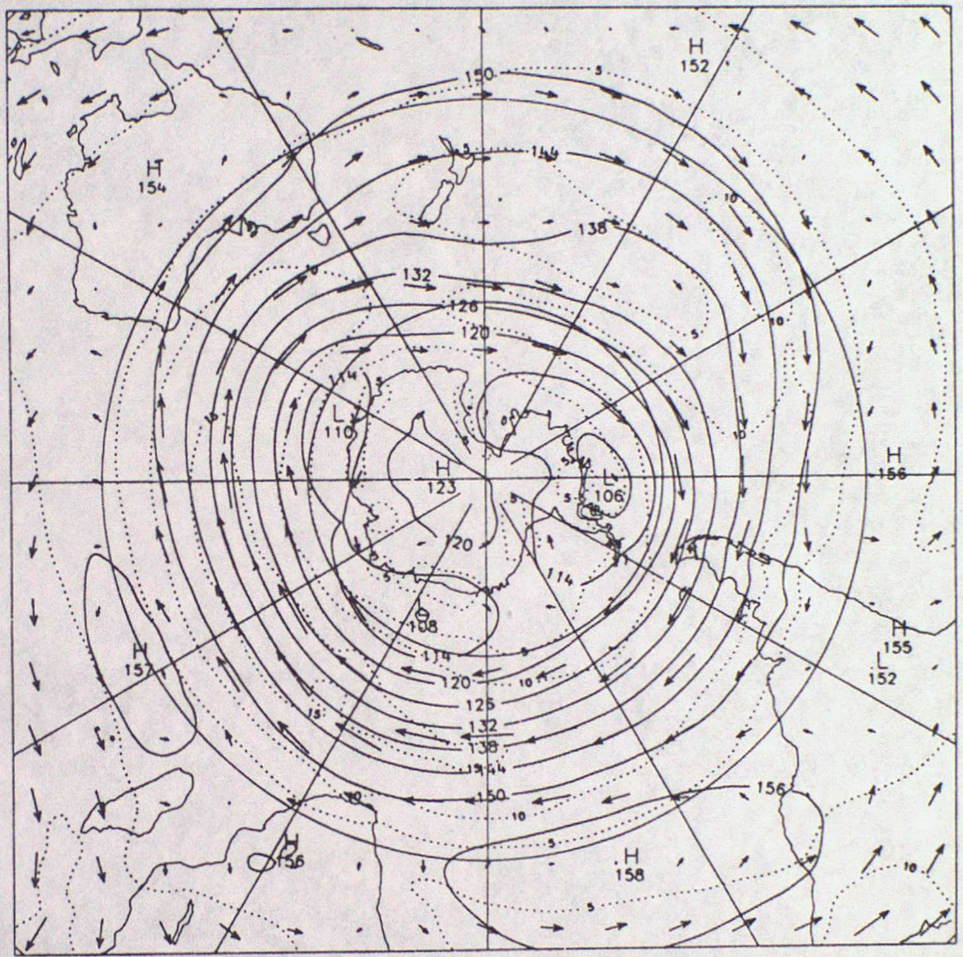
137
139
H
144
L
144
H
150
142
144
H
161
H
156
156
150
5
10

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 850 MB


H
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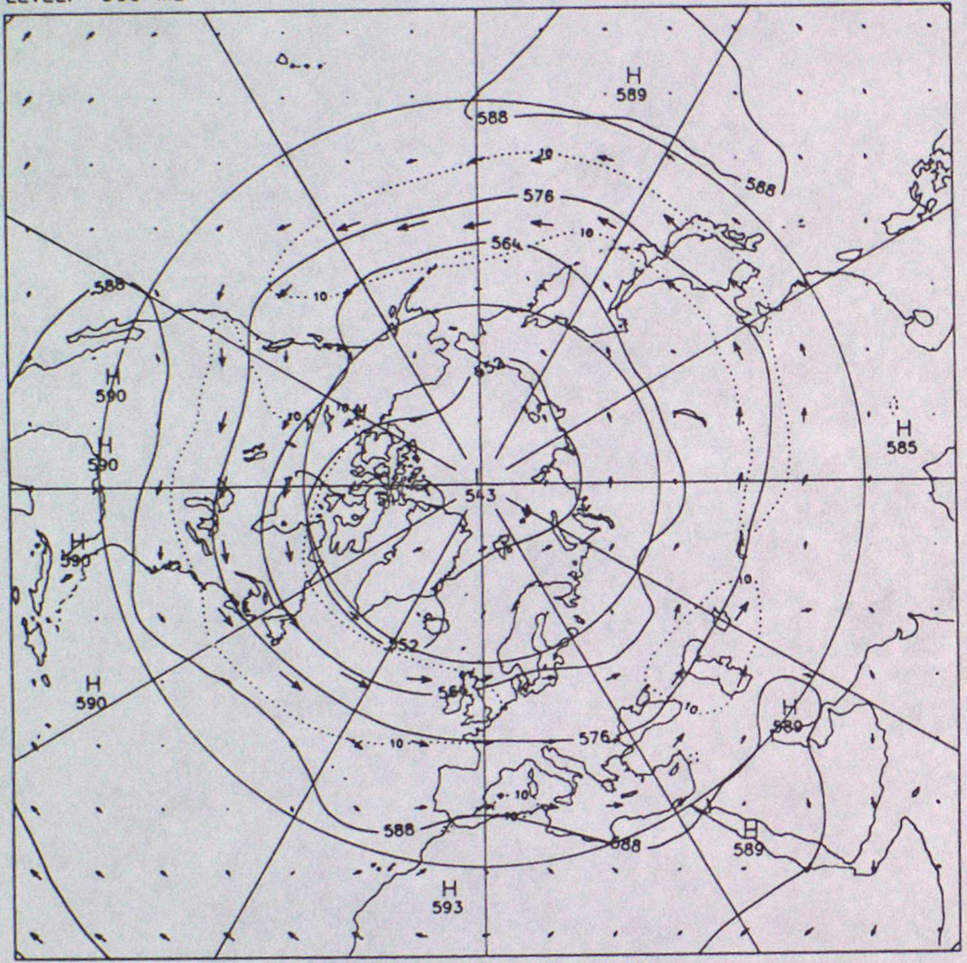
108
H
157
114
120
126
132
138
144
150
H
155
L
152
156
H
156
H
158
5
10
15

→ REPRESENTS 10 M/S CONTOUR INTERVAL: 60 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 500 MB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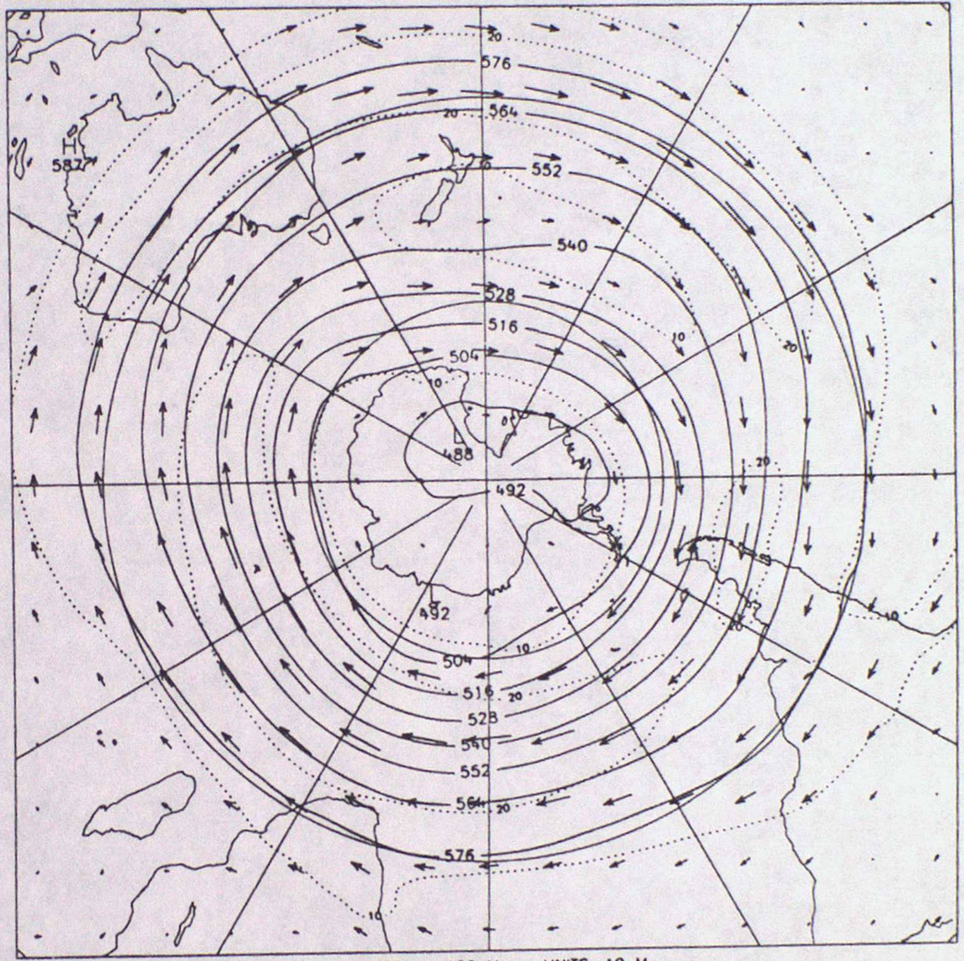
543
552
564
576
10
10
10
H
589
589
588
588
H
593
H
585

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 500 MB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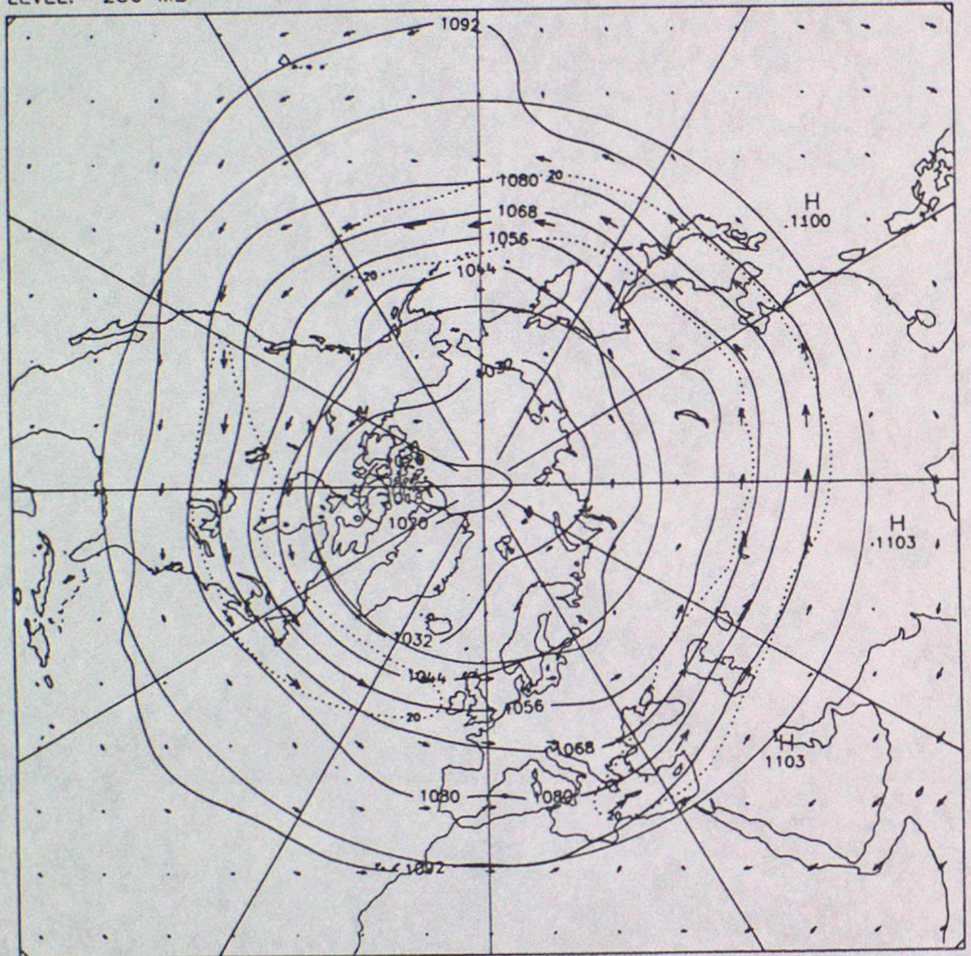
516
20
528
540
552
564
20
576
10
10
20

→ REPRESENTS 20 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 250 MB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1044
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1032
1020
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.1100
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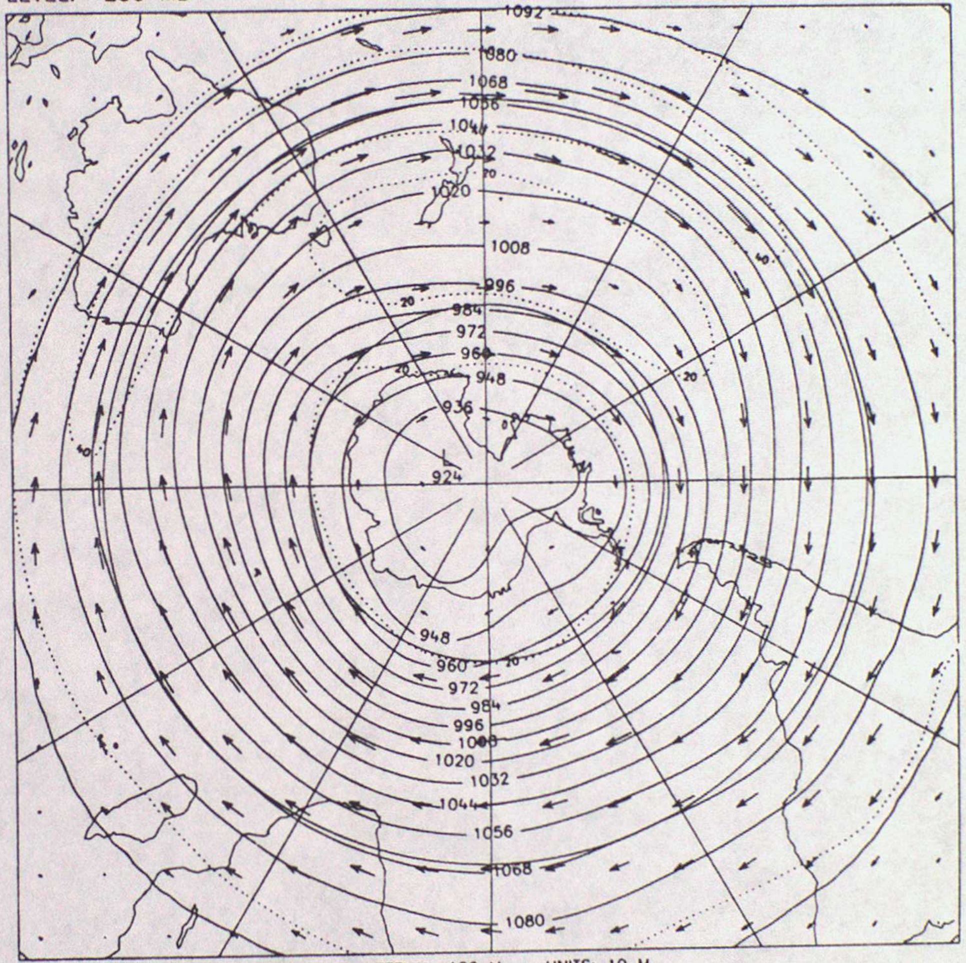
.1103
1032
1044
20
1056
1068
H
1103
1080
1080
20
1092

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 250 MB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936
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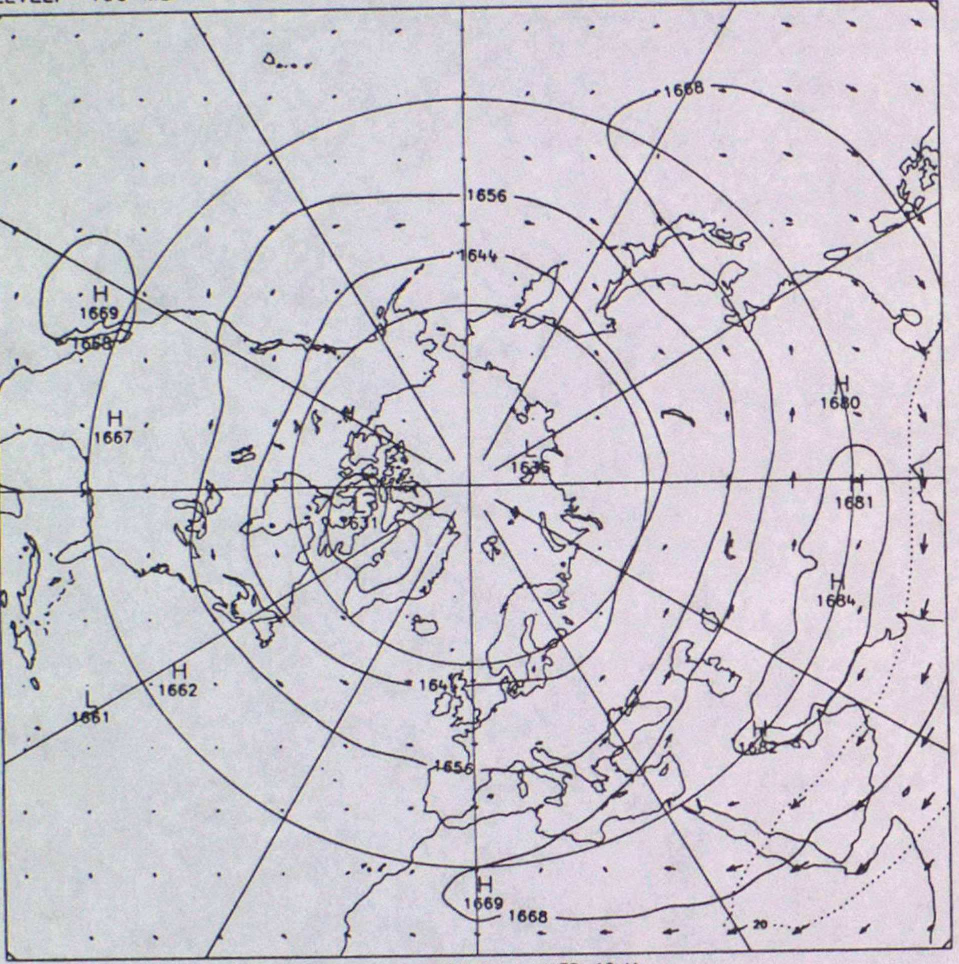
924
948
960
20
972
984
996
1008
1020
1032
1044
1056
1068
1080
40

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 100 MB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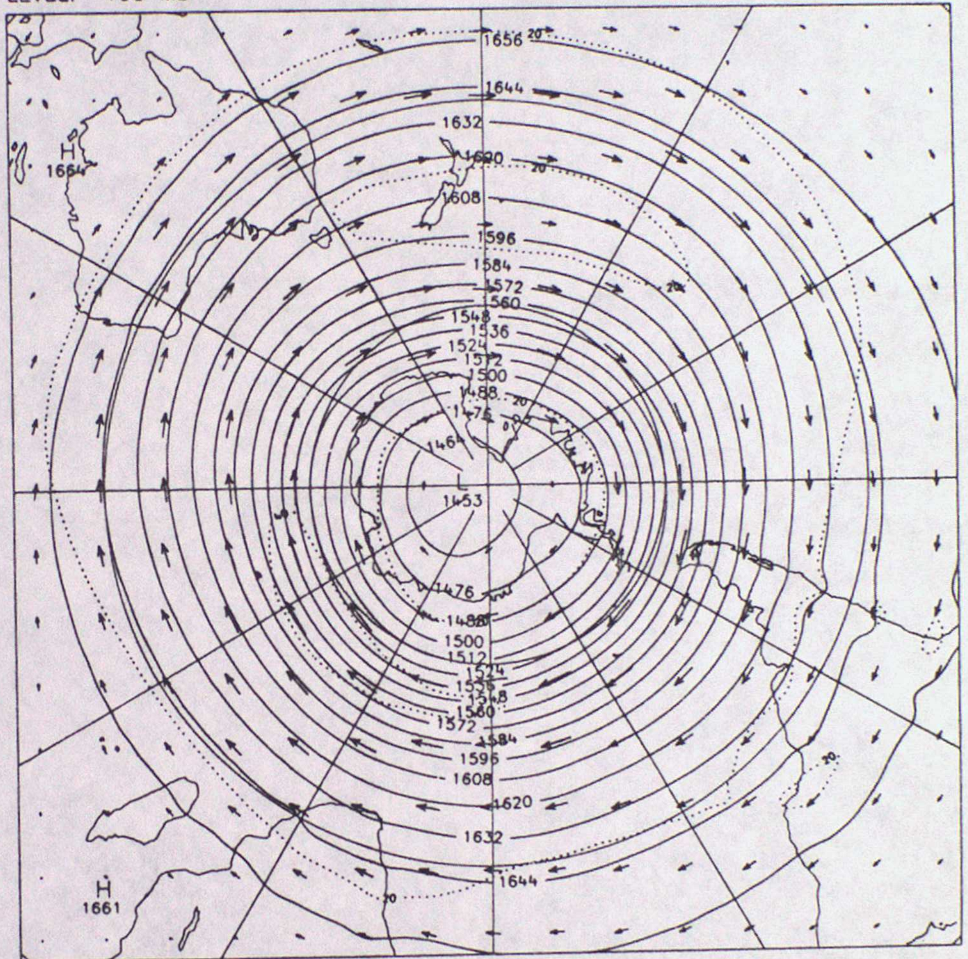
1680
H
1681
H
1684
H
1662
L
1661
1644
1656
1682
H
1669
1668
20

→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
HEIGHTS, WIND ARROWS AND ISOTACHS.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
LEVEL: 100 MB


1656
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1476
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1500
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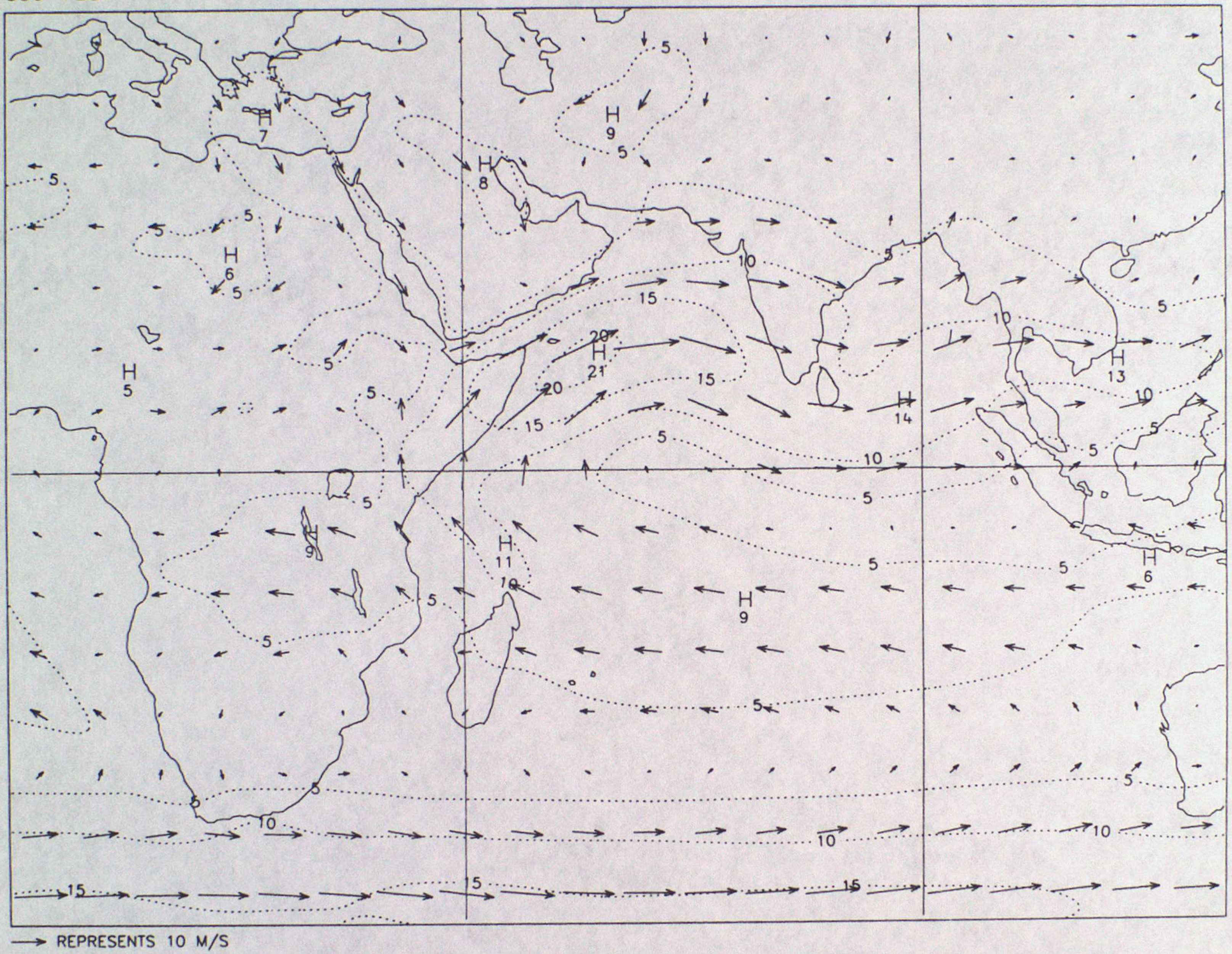
→ REPRESENTS 40 M/S CONTOUR INTERVAL: 120 M UNITS: 10 M

OPERATIONAL ARCHIVE MEANS.   JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS   BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM   0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
850 MBS.   BETWEEN LONGS. 0 E - 120 E



H 7
H 9
H 8
H 6
H 5
H 21
H 13
H 14
H 11
H 9
H 9
H 6
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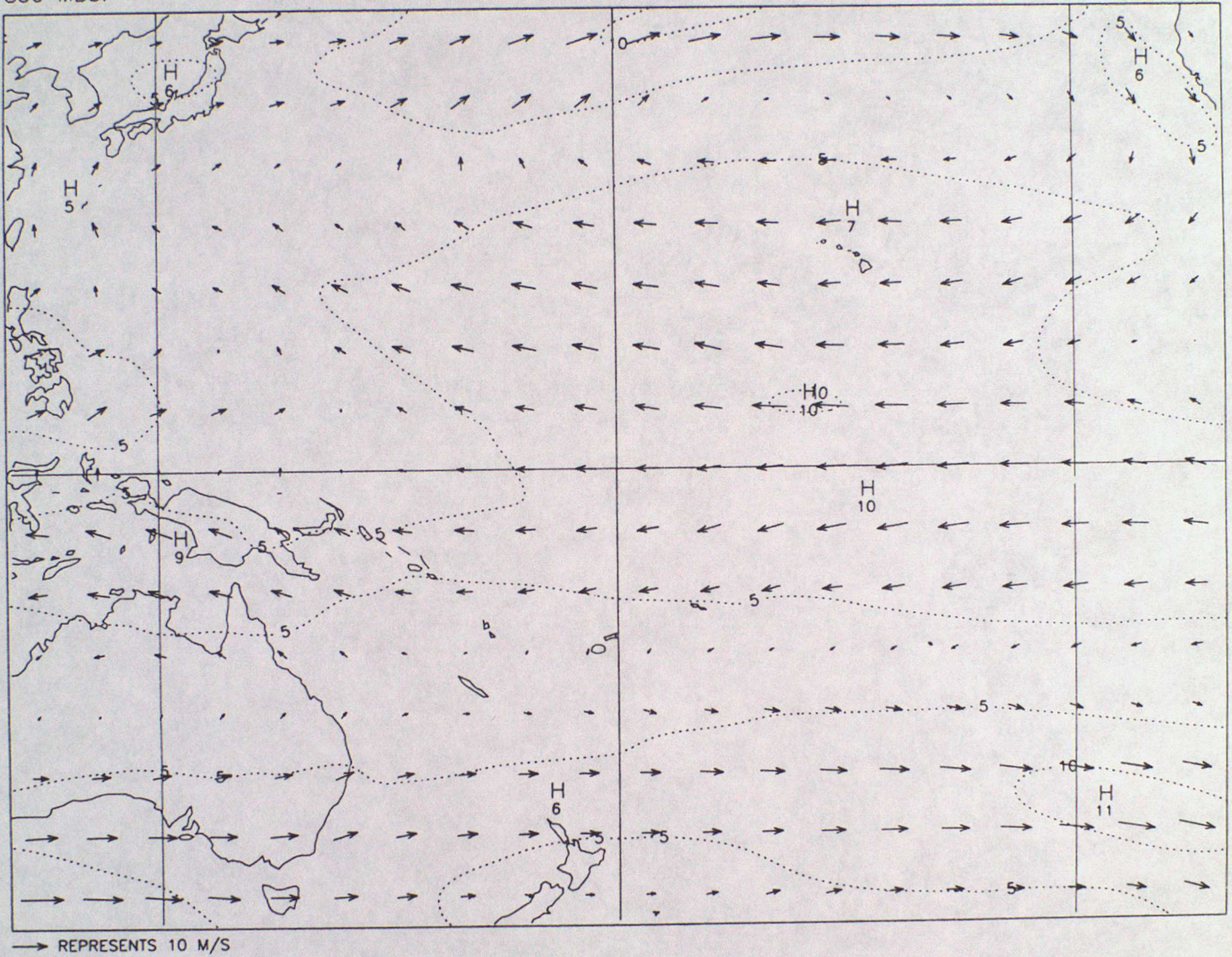
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
850 MBS. BETWEEN LONGS. 120 E - 120 W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H 6
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H 9
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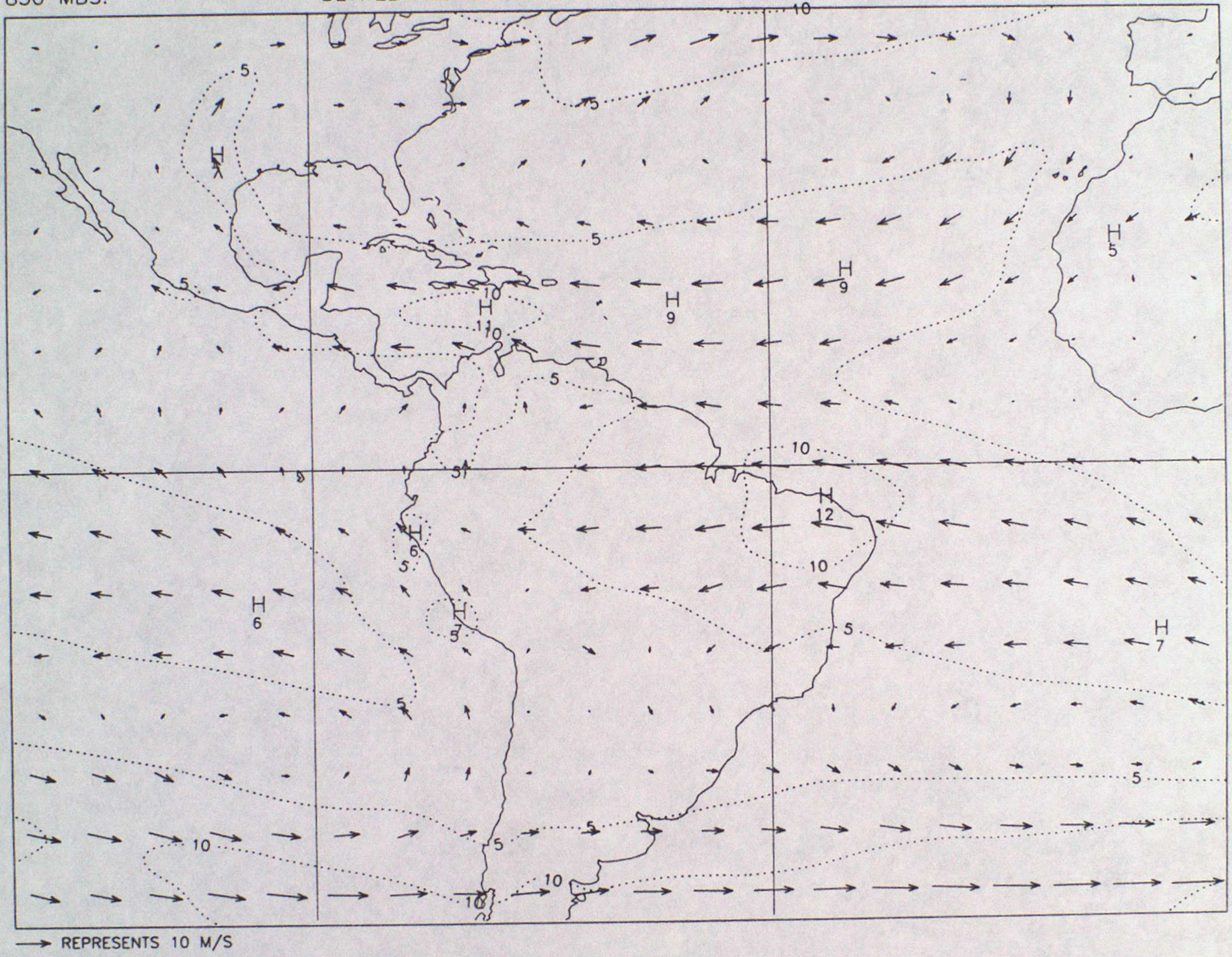
→ REPRESENTS 10 M/S

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
850 MBS. BETWEEN LONGS. 120 W - 0 W


→ REPRESENTS 10 M/S
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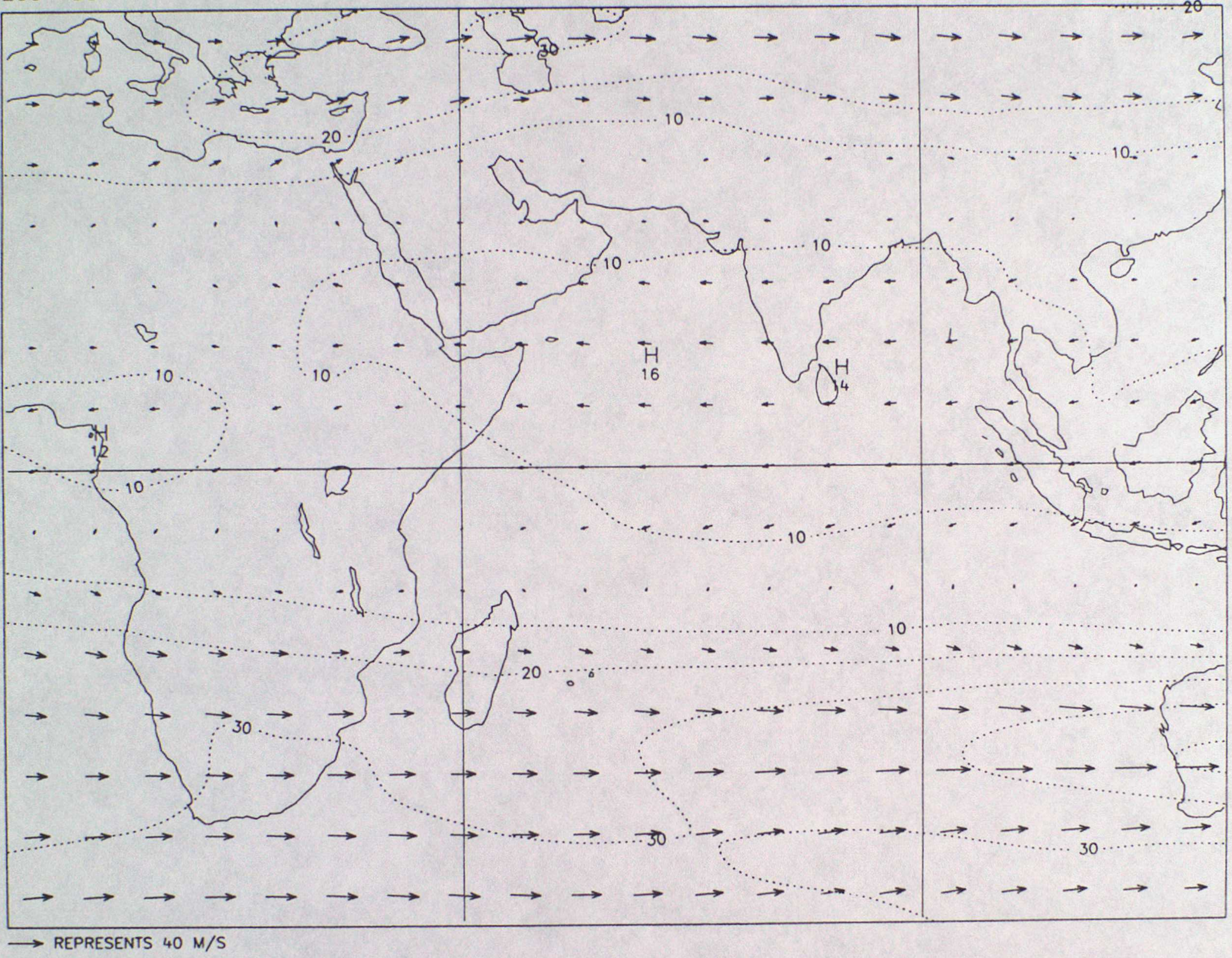
OPERATIONAL ARCHIVE MEANS.   JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
250 MBS.   BETWEEN LONGS. 0 E - 120 E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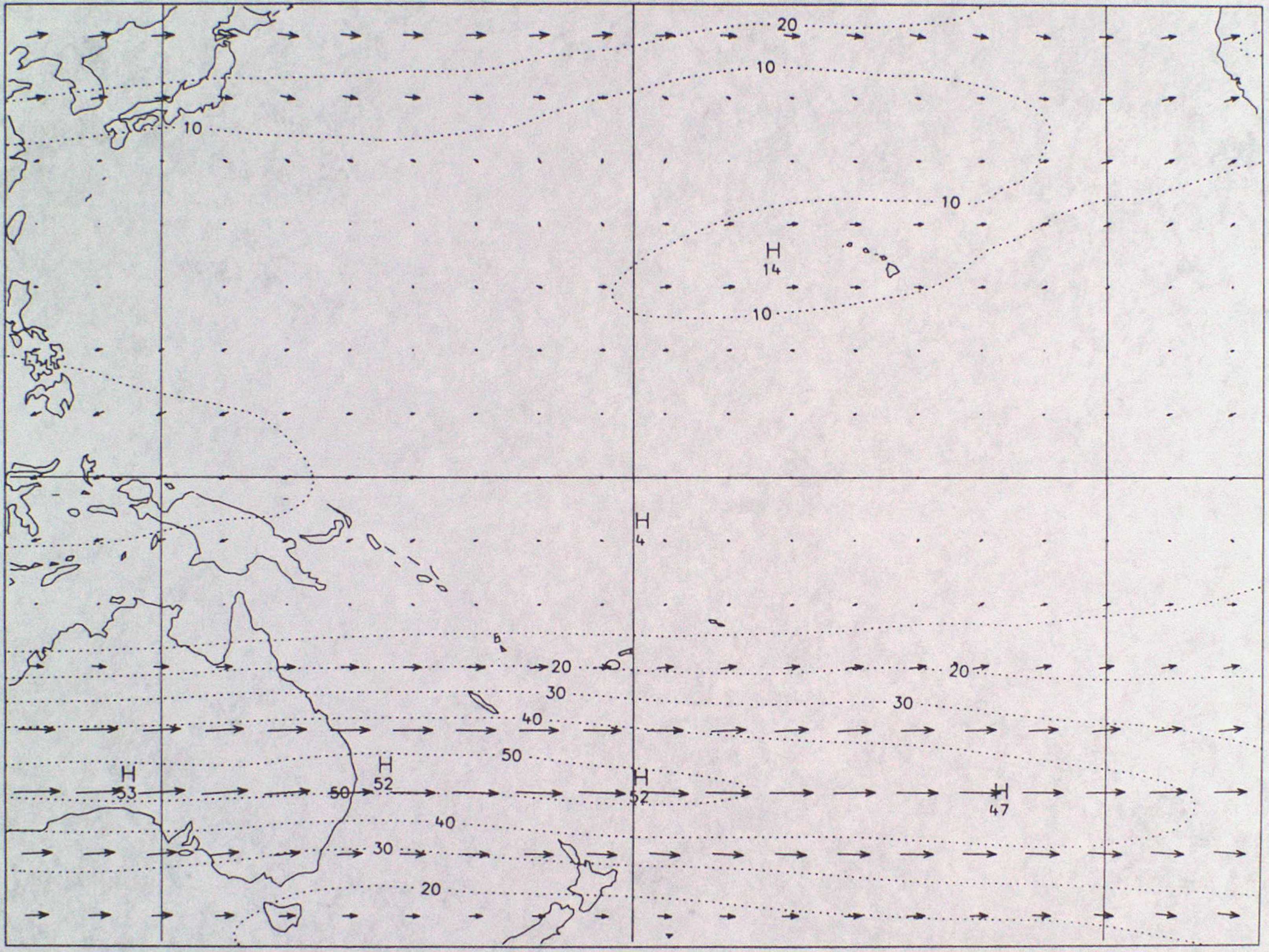
→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
250 MBS. BETWEEN LONGS. 120 E - 120 W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47
40
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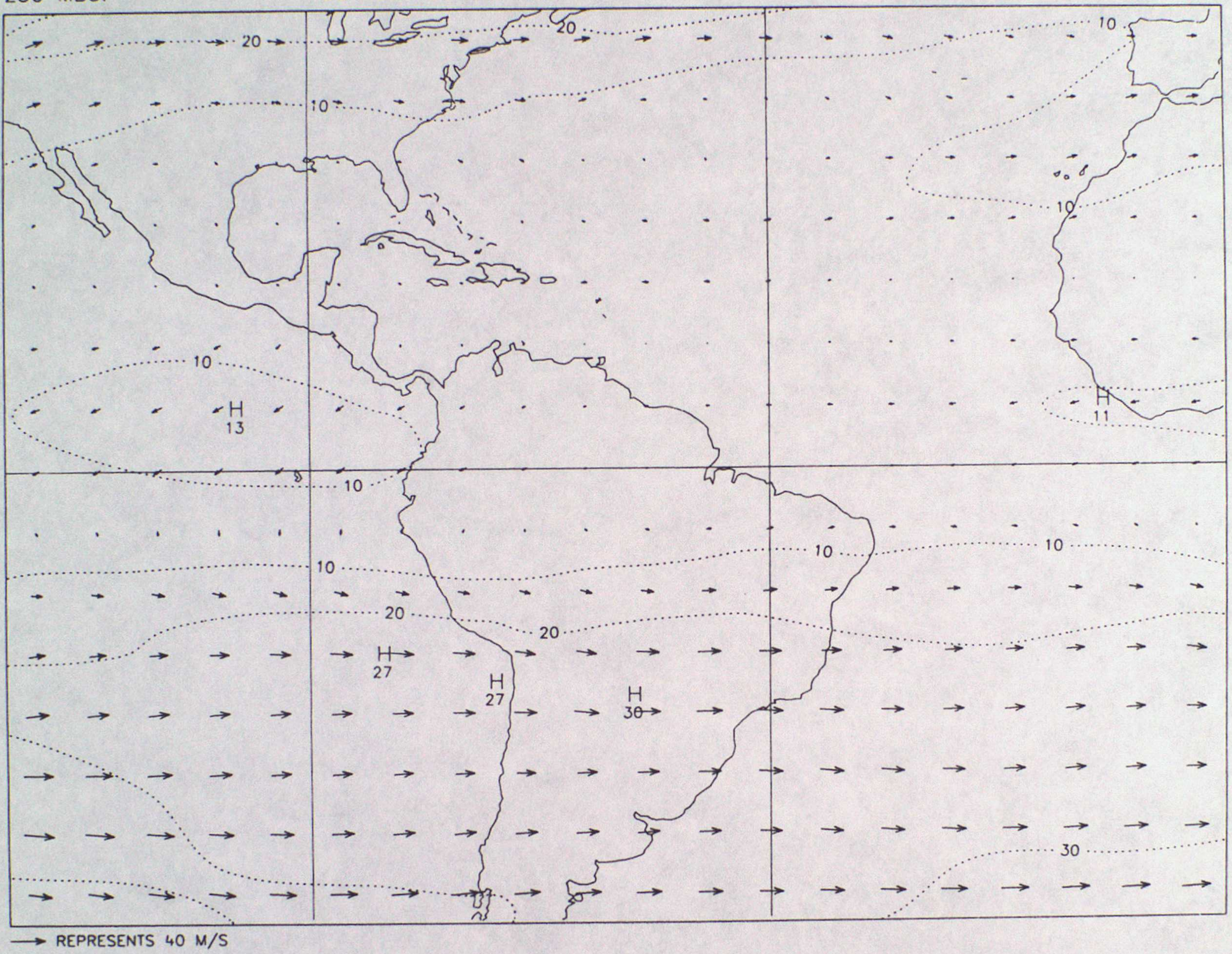
20

→ REPRESENTS 40 M/S

OPERATIONAL ARCHIVE MEANS. JUN/JUL/AUG1990
WIND ARROWS AND ISOTACHS BETWEEN LATS. 45 N - 45 S.
AVERAGE FROM 0Z ON 1/6/1990 DAY 152 TO 12Z ON 31/8/1990 DAY 243
250 MBS. BETWEEN LONGS. 120 W - 0 W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27
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30
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→ REPRESENTS 40 M/S